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ABSTRACT

This report describes a study undertaken to refine the guidelines of the Wisconsin Design for Reading Skill Development and to suggest general procedures for implementing any skill-centered approach to teaching reading. The first part of the report sets forth the purpose and focus of the study, with a literature review to define the nature of educational change. The second part describes the staff roles and procedures used in the subject schools. The third part summarizes suggested implementation procedures and recommendations on inservice training, scheduling, instruction, testing, and skill applications. A list of applicable instructional materials is appended. (AEA)

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Technical Report No. 503

A DESCRIPTION OF THE PROCEDURES USED IN IMPLEMENTING AN OBJECTIVE-BASED READING PROGRAM IN FOUR SCHOOLS

by

Karlyn Kamm and Sandra White

Report from the Project on
Studies in Language: Reading and Communication

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Wisconsin Research and Development Center
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The University of Wisconsin
Madison, Wisconsin

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- developing and demonstrating improved instructional strategies, processes, and materials for students, teachers, and school administrators
- providing assistance to educators which helps transfer the outcomes of research and development to improved practice in local schools and teacher education institutions

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Abstract

The members of the reading project staff at the Wisconsin Research and Development Center for Individualized Schooling have had a continued interest in identifying both the problems and the successes elementary school personnel experience in using an objective-based, or skill-centered, approach to reading instruction. Our experiences in developing the Wisconsin Design for Reading Skill Development, which provides a framework for using a skill-centered approach, have convinced us that skill-centered teaching is both workable and effective. The purpose of this study is to not only refine the current Wisconsin Design guidelines, but also to suggest general procedures for implementing any skill-centered approach to teaching reading.

On the basis of our observations in four schools we have identified a number of issues related to the implementation of a skill-centered approach to reading instruction. In discussing the issues, we make recommendations as to how school personnel might resolve various conflicts as they arise. The recommendations are based not only on the collective experiences of the project staff, but also on the conclusions of many reports concerning the nature of the educational change process.

One of our salient conclusions is that the concerns of school personnel when they adopt an innovation are related as much or more to simply undergoing the process of change as to the specific

guidelines for using the innovation. That is, a majority of the difficulties we observed stem not from the Design materials and procedures per se, but from the fact that the teachers are doing things that are new and for which they are often inadequately prepared. One of our strongest recommendations is that inservice training sessions be directed not only to the use of materials and proper procedures, but also to preparing teachers to make necessary changes in thier personal teaching, testing, and group management styles.

With better preparation for viewing the change process in perspective and for making the needed personal changes, teachers may find the implementation process less disconcerting. They may be better equipped to resolve issues related to establishing and teaching skills as the basis of the curriculum, to attain the flexibility needed for planning and scheduling, to establish a cooperative atmosphere for sharing ideas and materials, to decide how much testing is essential, and to integrate the teaching of all skills into the total curriculum.

The members of the reading project staff at the Wisconsin Research and Development Center for Individualized Schooling have had a continued interest in identifying both the problems and the successes elementary school personnel experience in using an objective-based, or skill-centered, approach to reading instruction. Our experiences in developing the Wisconsin Design for Reading Skill Development (Design) (Otto & Askov, 1974), which provides a framework for using a skill-centered approach, have convinced us that skill-centered teaching is both workable and effective. In line with our point of view, we are anxious to see skill-centered approaches examined so that, first, problems associated with implementation can be pointed out, and, second, suggestions about resolving the problems can be made to school personnel.

I

Purpose and Focus of the Study

The Design has been our model for a skill-centered approach to teaching reading, and we have limited our observations to schools where the Design is implemented. Our intent was not only to refine the current Design guidelines, but also to suggest general procedures for implementing any skill-centered approach to teaching reading. The specific purpose of our study was to (a) identify both large-scale (e.g., establishing strong leadership within a school) and small-scale (e.g., keeping track of resource files) problems, (b)

identify successful implementation practices, and (c) make recommendations for resolving difficulties and continuing successful procedures.

To begin observing implementation procedures, we identified, through a mail survey, approximately 100 elementary schools using at least one element, such as the Word Attack element, of the Design (White & Demos, 1977). School principals responded to our questionnaire by describing their school's implementation procedures. Subsequently, we selected 16 of these schools for observation (Kamm, White, & Morrison, 1977), and three staff members interviewd key personnel (e.g., principals, unit leaders) in each school. Finally, we chose four of these schools for a more intensive study of their implementation process. This report describes both successful and unsuccessful procedures used in the four schools and serves as a basis for recommendations related to these procedures.

Focus on Change

The focus of this study is primarily on describing successful and unsuccessful teaching, testing, and management methods used in schools to teach reading via a skill-centered approach. In addition, we have become convinced that it is equally important to pay attention to the problems and principles of educational change as an innovation is implemented. Through our numerous interviews with school personnel, we were impressed by the fact that teachers and administrators generally view the systematic teaching of reading skills as a significant innovation or, at least, as a departure from the pattern

of teaching previously followed in their schools. In view of this perception and of the prominence the recent literature gives to the highly complex nature of adopting an innovation (that is, planning, undergoing, and evaluating changes within schools), we have concluded that many of the problems that appear to be associated with the skill-centered approach are, in fact, attributable to difficulties with the change process, itself. In other words, many of the problems identified in the schools stem not so much from inadequate or inappropriate guidelines for implementing the Design as from difficulties encountered in using new teaching, testing, and management strategies without adequate preparation or training.

As part of our approach to examining implementation procedures used in the four schools, we reviewed reports that explain many of the change processes that take place in schools. Several of these reports are summarized below. In a later section of this report, implications are drawn for both the four schools in this study and schools in which an objective-based approach to reading is contemplated.

Nature of educational change. Zaltman, Florio, and Sikorski (1977) have written extensively about educational change. The following passage catches the flavor of their position:

> Educational institutions are inextricably caught up in the ebb and flow of societal change. The school is contemporary society's most salient educational institution. It is expected to carry the double burden of maintaining traditional values while preparing society's young members to deal with a changing world....The motivating

> forces for institutional change in education can usually be traced to either of two sources: (1) demands for the schools to respond to the socialization needs of society, or (2) use of the schools to solve social problems.... Regardless of whether the process is initiated within or outside of schools, there is little doubt that schools can be powerful tools of social change. There is a strong relationship between educational institutions and the other forces, institutions, and needs of the larger society in which they exist. (pp. 2-3)

They suggest three characteristics that "...afftect social change processes and help explain the special difficulties of creating change: (1) the nature of the teaching profession, (2) the configuration of the system's constituencies, and (3) the influence system (governance and control.)" (p. 3)

Regarding the first characteristic, Zaltman et al. (1977) say that teachers are the most significant human factors in the school organization, and that conflicting factors exist which "...render teaching less than professional, undereffective, and poorly regarded." (p. 4) These factors relate to the interpersonal nature of the teaching task, the relative isolation of teachers from their peers, the lack of a standard set of successful teaching criteria, the diverse character of parents and students, and the great demand for flexibility and improved practice without incentives.

The second characteristic refers to the individuals and groups (such as a principal and parents) that affect a school. These consitutencies are often quite diverse in their motivation for professional action in the school and they can create great political pressures. The third characteristic pertains to the diversity of

governing bodies, organizational entities, and environmental forces that exist within educational institutions. Frequently, the bureaucratic systems do not work. Rules and regulations exist, but they have little impact on students' learning performance. Another problem is that the control system of schools is often more fragmented than coherent. And school programs sometimes result from various political pressures rather than from official policy decisions.

Together, these three characteristics account for the frustrations that occur when change is attempted. More than ever before, educators are aware of the realities of the teaching profession, the nature of schools' constituencies, and the influence systems that determine how schools are governed and controlled and why they are engaged in diverse innovative efforts. As Havelock (1974) has pointed out, "Every year there are at least 20,000 and probably more like 100,000 innovation efforts begun in U.S. school districts." (p. 92) With so many efforts being made, the relatively recent inclination to systematically study the problems educational institutions experience when they undergo change is both timely and important.

Findings from studies of educational change. From the many studies of change in the schools, certain principles, as well as informal suggestions, have been derived which serve as guidelines for school peronnel involved in innovation. Some of the priniciples are tied to "change models," which are specific plans that an administrator can follow to bring about change. Zaltman et al. (1977) have studied such plans in depth. They have categorized

the plans according to type and propose their own"synthesis" model. They also discuss a variety of strategies, tactics, and dimensions which school planners can adapt when systematically making their own local changes. Some more informal guidelines for change have been described by Baldridge, Crandall, Havelock, Miller, Pierce, and Temkin (Note 1). They suggest general principles that are important for planners to follow, such as ensuring that program objectives are limited and specific, new ideas have substance and are appropriate for the local school, enough time is allowed for implementation, users are involved in planning and management procedures, and evaluation of the innovation is carried out. Actually, many of these suggestions are incorporated in the more formal principles of change summarized by Zaltman et al. (1977) (pp. 311-335)

Three main points seem clear at this time: (a) carrying out change in the schools is difficult; (b) schools are currently involved with many diverse innovations; and(c) investigators are attempting with some success, to identify guidelines and principles for change planners to follow. In addition, efforts have been made to describe the various stages of progress that teachers experience when they adopt and implement an innovation. Hall (1975) has devised a "Levels of Use" scheme which he uses to describe the degree of familiarity teachers have with an innovation during implementation. The scheme includes a range of levels, from the "orientation" level to a sophisticated "renewal" level, where teachers are very knowledgeable and extensively involved with making decisions about use of the innovation.

As part of our attempt to describe the implementation process in each school, we used Hall's scheme in an informal way to assess each staff's degree of familiarity with a skill-centered approach. For example, after we interviewed a group of teachers and determined their various implementation responsibilities, we assigned them, individually, to particular levels of Hall's scheme, according to how well acquainted they were with Design implementation procedures. The scheme helped us think in general terms about a staff's familiarity with teaching and managing a skills approach. We were also guided by the principles identified by Zaltman et al. (1977) as we examined the four schools' implementation procedures and formulated recommendations.

Overview of the Report

Based on our observations in four schools, we have identified a number of issues related to implementing a skill-centered approach to reading instruction. In discussing the issues, we make recommendations as to how school personnel might resolve various conflicts as they arise. The recommendations are based not only on the collective experiences of the project staff, but also on the conclusions of many reports concerning the nature of the educational change process.

One of our salient conclusions is that the concerns of school personnel when they adopt an innovation are related as much or more to simply undergoing the process of change as to the specific guidelines for using the innovation. That is, a majority of the difficulties we observed stem not from the Design materials and procedures

per se, but from the fact that the teachers are doing new things which they are often inadequately prepared for. We emphasize this point in our discussion of the leadership issue. One of our strongest recommendations is that inservice training sessions be directed not only to the use of materials and proper procedures, but also to preparing teachers to make necessary changes in their personal teaching, testing, and group management styles.

With better preparation for viewing the change process in perspective and for making the necessary personal changes, teachers may find the implementation process less disconcerting. They may be better equipped to resolve issues related to establishing and teaching skills as the basis of the curriculum, to attain the flexibility needed for planning and scheduling, to establish a cooperative atmosphere for sharing ideas and materials, to decide how much testing is essential, and to integrate the teaching of all skills into the total curriculum.

Far too many variables exist for us to identify a single plan, appropriate for every school, which would make the implementation of a skill-centered approach easier. However, by paying greater attention to psychological factors, such as preparing administrators and teachers for their role in using the innovation and for making the necessary changes in individual style during inservice training, we can increase their ability to deal with implementation problems as they arise.

II

Description of the Staff Roles and Procedures Used in the Schools

During the 1977-78 school year three project staff members made a number of visits to the four schools selected. During each visit, reading instruction was observed and school personnel were interviewed about how they manage teaching reading skills and using the Wisconsin Design. By the end of the year, the project staff had talked with almost all of the aides and teachers and all of the reading resource teachers and principals.

Describing curricular activities in any school is a substantial undertaking, and, certainly, the intent of this study is not to report the details of a day-to-day schedule. Rather, the general reading program in each school is described and special attention is focused on the degree to which the teachers have individualized their instruction. The reader will be able to compare his or her own setting with one of the four presented here, and make some determinations about whether or not to begin or continue a skill-centered approach to reading instruction, how to get a skills program started, or what modifications, if any, might be made in an ongoing program. The reader should remember that while the four schools investigated use the Wisconsin Design, the findings can be generalized to any setting where an objective-based approach to reading instruction is used. For those readers who are not familiar with the Design, a brief explanation of the components is included in the next section.

Table 1 provides a summary of background information for the four schools. It may help the reader to determine which school setting is most similar to his or her own, if such a comparison is desired.

Wisconsin Design for Reading Skill Development

The Wisconsin Design for Reading Skill Development (Design) was adopted by the four schools in this study as a vehicle for implementing skill-centered reading instruction. The Design is a skills management system that provides an organizational basis for teachers to individualize a skill-based approach to reading instruction. It includes five main components: skills and objectives, assessment, management, instruction, and evaluation. Within the first component, important reading subskills are identified in six areas or elements: Word Attack, Study Skills, Comprehension, and Self-directed, Interpretive, and Creative reading. For each skill in the Word Attack, Study Skills, and Comprehension areas, there is a stated behavioral objective wich prescribes how the child is to attain mastery of the skill. In the Self-directed, Interpretive, and Creative reading elements there is a descriptive objective for each skill, which describes activities relevant to the development of the skill.

In the assessment component, criterion-referenced tests have been written for each of the prescriptive objectives in the Design. That is, using the behavioral objective to describe the criterion performance for each skill, individual instruments have been developed. The majority of the instruments are for group administration, but a few, called performance tests, are intended for individual

Table 1

School Settings

School	Project staff visits to schools	Geographic Location/ Size of Community	Organizational setting[a] in School	Grade levels in school and number of classes	Size			General socio-economic status/ % of minorities	Wisconsin Design Elements Implemented			Basal reader(s) used
					Classroom teachers	Students	Aides		Elements	Grade Level	Length of use	
A	Visits=3 Total number of days=8	Northeast/ small town	Self-contained classroom	K, one class Gr.1, one class Gr.1-2, three classes Gr.2-3, two classes Gr.3, one class Gr.3-4, one class Gr.4, one class Gr.4-5, two classes Gr.5, one class	13	338	5	Middle/0%	Word Attack	1-4	2 years	None
									Study Skills	3-5	2 years	
									Comprehension	1-5	Gr.1, 1/2 yr. Gr.2-3, 1 yr. Gr.4-5, 3 yrs.	
B	Visits=5 Total number of days=6	West/ suburban area	Multiunit	K, two classes Gr.1, two classes Gr.2-3, four classes Gr.4, two classes Gr.5, two classes Gr.6, one and one-half classes	Tracks[c] A&B=14 Tracks A&C=14 1/2 Tracks B&C=14 1/2 (Total number, Tracks A,B,&C=21 1/2)	585 (All three tracks) 400 (Two tracks)	1# 1/2 time; 2# 1/4 time	High-middle to High/1%	Word Attack	K-4	7 years	1. Bensiger Linguistic Readers (1976) 2. Lyons & Carnahan (1974) 3. Ginn (1973) 4. Scott-Foresman (1973-1974)
									Study Skills	1-6	6 years	
									Comprehension	1-6	4 years	
C	Visits=5 Total number of days=6	West/ suburban area	Multiunit	K, two classes Gr.1, five classes Gr.2-3, six classes Gr.4-6, six to seven classes	Tracks[c] A&B=20 Tracks A&C=18 Tracks B&C=20 (Total number, Tracks A,B,&C=29)	937 (All three tracks) 630 (Two tracks)		Middle to High-Middle/7%	Word Attack	K-6	1 year	1. Bensiger Linguistic Readers (1976) 2. Houghton-Mifflin (1975) 3. Scott-Foresman (1973-1974)
									Study Skills	1-6	1 year	
									Comprehension	Not used		
D	Visits=6 Total number of days=6	Midwest/ suburban area	Multiunit (IGE)[b]	Unit A K, two classes Gr.1-2, three classes Unit B Gr.2-3, three classes Unit C Gr.3-4, three classes Unit D Gr.3-4, three classes Unit E Gr.5-6, three classes	21	560	16 (5 paraprofessional[d] aides; 11 clerical[e] aides)	Middle/31%	Word Attack	K-6	6 1/2 years	1. MacMillan (1970)
									Study Skills	1-6	6 years	
									Comprehension	Not used		

[a]Setting - The school settings are described as either self-contained or multiunit. A self-contained setting is one in which students from one grade level (sometimes two grade levels) are grouped together in one classroom and receive the majority of their instruction from one teacher. A multiunit setting is one in which students from two to three grade levels are grouped together for instructional purposes and may receive instruction from several teachers.

[b]IGE - Individually Guided Education is a school organization aimed at providing for students' individual differences through statements of behavioral objectives, an instructional program designed to achieve the objectives, procedures for placing students and for monitoring their progress, guidelines for organizing instruction, and measurement tools and evaluation procedures.

[c]Track - one of three groups (A, B, or C) of students in attendance at specified times during a calendar year. (Two tracks are always scheduled in school together; one track is always off.)

[d]Paraprofessional - designation for aides working directly with students.

[e]Clerical - designation for aides not involved with instruction on a routine basis; they do mainly typing, duplicating, checking of papers, and recording of students' scores on charts, cards, and record books.

administration. Informal instruments, the Word Attack Guides to Informal Assessment, were also developed for the Word Attack element. These are individually administered to students who find learning the skills and taking tests in group situations difficult.

Several testing procedures are associated with the assessment component and are frequently referred to in the discussion of each school. Break-in testing is usually the first step in implementing the Design. Each student's reading level is ascertained, a corresponding Design level is assigned, and all of the tests at that level are administered in several sittings. Retesting at a different level is done if a student either passes or fails all of the tests he or she takes at one level. Posttesting is the administration of a single test for a skill, after instruction has been given, to determine whether or not a student attained the mastery criterion (usually 80%). Pretesting involves giving selected tests at one level of the Wisconsin Tests of Reading Skill Development, say Level D, to one or more students who have just completed a level, say Level C. The Design guidelines suggest which tests at a level should be pretested first.

The management componenet includes the Rationale and Guidelines, an overview document, and a teachers planning guide (TPG) for each element. The TPG has guidelines for helping teachers plan their instruction, group the students, and organize their schedules. A pupil profile card is also available for each element to help teachers keep records of the skills mastered by each student.

The instructional component of the Design includes a Teacher's Resource File, which consists of individual files for each objective. The files contain a collection of materials suitable for teaching the particular skill. The materials include directed and independent learning activities as well as a list of related, commercially published materials. All of the Design components are described in more detail in the Rationale and Guidelines (Otto & Askov, 1974).

School A

School A is located in a small town in the Northeast. It is in one of seven school districts, all under one superintendent. All of the teachers are from the surrounding area and there is little teacher turnover within the district. The school has basically self-contained classrooms, although the teachers team in pairs for reading and social studies activities. The teachers began using the Design in 1975. Prior to that time, they relied on a basal reader text for their entire reading program and did not focus on skills.

How a skill-based approach got started. In 1972 a new principal began encouraging teachers to use a reading approach other than the one in the currently used basal reader. He thought it unwise for every teacher to do essentially the same thing for every student and to adhere so strictly to one set of guidelines. Some of the teachers agreed with the principal, and sought some additional instructional materials.

During the next year a newly hired reading specialist formed a reading committee (of primary and intermediate teachers) to evaluate the continuity of the school's reading program. Members of the committee agreed that skills should be the basis of a reading program and they encouraged the rest of the staff to concentrate on skills and use materials other than the basal reader to teach the skills.

The committee examined several skills lists and selected the skills they thought were important. They, subsequently, wrote behavioral objectives for each skill, but found them too general to be useful. Because the committee was discouraged at the prospect of writing diagnostic tests for each skill, the reading specialist studied various management systems already developed.

After attending several awareness workshops on various programs, a decision was made to examine the Wisconsin Design more closely. Ultimately, the principal and reading specialist selected the Design. The reading specialist attended a 3-day inservice session conducted for local trainers by the reading staff from the Wisconsin Research and Development Center for Individualized Schooling. Later, he did further research to prepare and adapt an inservice session for his staff.

Inservice sessions. The reading specialist held the first session in May for all School A teachers. It was a 3-hour overview explaining the background and rationale for the Design and general procedures to be used in their school. A second session was held

in June for about 1 1/2 hours. Ths included more specifics about how to begin the next fall. In the fall two additional 3-hour sessions were held--one for primary, focusing on Word Attack and one for the intermediate, focusing on Comprehension. Instructional management procedures were the main topics. During each succeeding month the first year, 1 1/2 hour inservice sessions were held to talk about implementation problems. These sessions were held during the afternoon. Three of them were regularly scheduled work sessions provided by the district. The remaining times were specifically requested by the reading specialist.

Elements implemented. During the first fall (1975), the intermediate teachers implemented the Comprehension element of the Design. They followed with the Study Skills element the following fall (1976). The primary teachers started Word Attack in January 1976 and followed with Comprehension in fall 1977. Actual instruction in Comprehension began in March.

Parent involvement. Shortly after implementation was begun, the reading specialist held an awareness session for parents about the Design and created a special display on it for their "Open house" night. Although many parents do not understand how the Design operates, they generally like its focus on basic skills, and they volunteer their time to help in the library and with general reading and story time. This allows teachers time to devote to Design skill instruction.

The reading program at the primary level. The primary grade teachers schedule about an hour for reading instruction every morning. This time is roughly divided in half, concentrating on skills during the first 30 minutes, and emphasizing general development activities during the second 30 minutes. Both of these segments are explained in the following discussion, with particular attention to the various management procedures associated with teaching the skills.

● Grouping structure: During the "Design skills" segment of the reading period, the teachers carry out a continuous cycle of grouping the students according to their skill needs, providing appropriate instruction, and subsequent posttesting. The teachers started their first skill grouping cycle shortly after the initial inservice session on the Word Attack element. The reading specialist initially helped them determine each student's skill attainment level by conducting the break-in testing. He also helped the teachers examine results and form appropriate skill groups.

Three of the primary teachers, the 1-2 teachers (see Table 1), exchange students for the Design skills portion of the reading period. This allows each teacher to assume responsibility for only a few skills, and to teach those particular skills to all of the students in three rooms. The two 2-3 teachers do not exchange students for skill instruction and the one first-grade teacher elected not to use the Design with her children, since her students were working only on readiness skills.

The teachers established the recommended 3 weeks as an appropriate length of time for a skill group to meet. At the beginning of the 3-week grouping period, or cycle, all five teachers examine the skills needed to be taught. Each teacher generally selects three, so there may be as many as 15 ongoing groups during any one primary skill grouping period. After assigning students to their groups, the teachers begin instruction and try to complete their scheduled lessons in about 15 days. The last step in the cycle is to posttest.

- Testing skills: The teachers delay their posttesting about 5 days after the last teaching day to ensure that the students have retained the skills for some length of time. Frequently, they begin another skill cycle before completing the testing for the previous set of skills. They are able to do this since each student is always put in a skill group different from his or her previous one, even if mastery was not attained. The teachers are concerned that students may become bored and discouraged if they are grouped for the same skill twice in a row.

- Skill selection: The three 1-2 teachers generally elect to teach the same or similar skills during each cycle, and consequently, become "experts" in those skills. They believe they have substantially augmented the resource files for the skills they teach, and if only a little preparation is necessary, less time is wasted. A disadvantage is that the teachers report they get very tired of teaching the same skills time after time.

The teachers generally select the skills to teach in the order they are presented on the pupil profile card. Certain Word Attack skills (e.g., beginning consonants) are regarded by the staff as essential and others (e.g., syllabication, schwa) are regarded only as skills students should be exposed to, but not required to master. For this latter set, teachers do not schedule any student in more than one skill cycle.

● Teaching materials: The School A teachers plan their skill instruction according to the Design Teacher's Resource File, and then supplement the file lessons with activities from many commercial materials (e.g., games, learning kits). Each spring the teachers are given a sum of money to purchase additional materials.

Having a wealth of materials available has been mainly an advantage for the teachers, since they are able to provide a variety of learning activities and break away from the constant use of ditto sheets. One teacher thinks having adequate materials is the key to individualizing instruction within one room: "I'd rather have more materials than another person to help with my instruction."

One negative aspect of having so many materials--including resource files (only one per every three to four teachers is recommended)--is that the teachers have little need to exchange instructional ideas and materials. They do very little sharing, and therefore, are relatively unaware of what each other is doing. Much can be gained from trading ideas on how to present and use certain skills, what sequence to teach them in, and what specific activities work best with different skills.

Skill instruction on a daily basis consists of different assignments for each skill group. While one group receives direct instruction, the other one to three groups do certain activities either without or with minimal teacher direction over the next few days. These assignments may be done either at a station (an area where specific materials to develop a skill are located) in the room or at individual desks or seats. The students usually work alone, in pairs, or in three's.

The students in a skill group receiving direct instruction are excused from the group if the teacher believes they know the skill. They do independent reading or skill reinforcement activities on their own and are brought back for posttesting later.

Students who do not master a "necessary" skill the first time may work with the teacher on the Word Attack informal guide for that skill, or return to the same skill group later in the year.

● Skill application: Teachers report that finding ways to get students to apply skills is difficult. One reason for this is many teachers are not accustomed to thinking about how to get students to use skills. Rather, they are more used to teaching, or developing skills, and then checking them off as students attain the mastery criterion on the posttests. To think more about application, teachers need, first, to think more about skill reinforcement. Reinforcement can be as simple as reminding students how to use a skill they attained earlier. For example, when determining the sequence of a paragraph, the topic sentence, if taught previously, can be pointed out.

Reinforcement of every skill should take place periodically during the year. It can have a very positive effect on students' skill retention.

Teachers must familiarize themselves with a wide range of skills, so they can spontaneously recognize appropriate contexts for reinforcing different skills. When teachers are able to relate various skills to different subject matter, then reinforcement becomes a natural part of instruction instead of a planned activity. Some School A teachers report that they have become adept at reinforcing Word Attack skills in any part of the curriculum because they know these skills, but are not yet familiar enough with Comprehension skills to reinforce them in the same spontaneous way.

Once teachers are in the habit of reinforcing skills, they find it easier to provide application opportunities--that is, recognizing situations where students can use a certain skill(s) in real life circumstances. As teachers gain experience in providing these opportunities, they can begin a "file" of activities and suggestions appropriate for applying the different skills. The School A primary teachers are at the point where they need to consistently reinforce Comprehension skills, so they can more readily provide application opportunities.

● Teaching skills in more than one element at once: In planning their skill groups the primary teachers schedule a 3-week Word Attack cycle and then follow it with a 3-week Comprehension cycle. The teachers decided that by alternating Word Attack and Comprehension skill instruction, they would have to prepare for only

one to three skills (in one element) at a time. They thought that trying to form and teach both Word Attack and Comprehension skill groups at the same time would be too confusing for their students, as well as themselves. The project staff suggested that when scheduling the two cycles, more time should be allowed for Word Attack groups. Specific skill instruction in Comprehension in the primary grades does not require equal emphasis.

● Developmental reading: The second (30 minute) half of the reading period is designated as developmental reading. During this segment, students are assigned more general activities than those assigned during the skills segment.

For example, a student doing a devlopmental activity might read a story and answer questions requiring knowledge of several Comprehension skills, while in a skill group, the questions would focus on only one Comprehension skill. Other developmental activities include small group discussions, writing a story with questions and answers, working with commercial learning kits (e.g., the SRA Schoolhouse Kit--Comprehension, 1974), and working on sight vocabulary.

The skill and developmental segments are separate in the 1-2 rooms because students are exchanged for the former, but not for the latter segment. The primary (1-2) teachers sometimes create a completely different atmosphere in the developmental segment by having the entire class work together, say, on writing a story. During this time they might try to reinforce some of the specific Design skills taught earlier. The teachers believe that exposing the students to

heterogeneous, large groupings is stimulating for them, and provides some needed variety in their teaching strategies. The teachers also say they would not have the time nor energy to individualize instruction in every part of the curriculum

The project staff believes the reading program in the primary rooms is excellent. The teachers are concentrating on skills and using their developmental time for reinforcement (in the Word Attack element), not for simply reteaching the skills. The result is that there is a balance between the amount of specific skill and general developmental instruction. In all the primary rooms the Design skills have been worked in with the rest of the reading curriculum, so that one reading program exists and not two separate ones.

The reading program at the intermediate level. The intermediate teachers have designated an hour in the morning every day for reading activities. Generally, 30 minutes is devoted to skill groups and the other half to independent reading (discussed in the next section).

- General overview: During the Design skills time, Word Attack skills are taught to students not yet independent in decoding ability, and Comprehension and the References area of Study Skills are taught to all students. (The maps and graphs/tables areas of Study Skills are taught during the social studies and sciences periods.) Developmental reading activities are generally worked in during the skill group time and are used to reinforce the skills.

- Grouping structure: During the skills time, each teacher may handle as many as three or four groups when teaching either

Comprehension or Reference skills. Like the primary teachers, they believe that alternating instruction among the elements and not trying to teach, say, the topic sentence and alphabetizing skills concurrently, is the best plan. They generally divide time between the Comprehension and References cycles equally, and select the skills in the order they are presented on the profile card. Each cycle is about 3 weeks long and the posttesting is usually delayed at the end.

The two other areas of Study Skills, maps and graphs/tables, are taught during the social studies and science periods. Since the intermediate teachers team for these subjects, each teacher is responsible for teaching only one area, not both. They believe this is efficient since much of their preparation time can be focused on related skills, rather than on unrelated ones.

When they teach skills in these two content subjects, the teachers do not form separate skill groups as they do during reading. Instead, they teach one skill at a time to the whole group. Like the primary teachers, they believe the whole group method provides a balance to the more homogeneous skill groups, and also relieves the teachers from having too many groups during any one day. Another reason for using the whole group method for teaching maps and graphs/tables skills is that, in addition to the ongoing Comprehension or References skill groups in the reading period, some intermediate teachers and students are also invovled in the Word Attack skill groups.

● Teaching materials: Each intermediate teacher has many materials in addition to his or her own Teacher's Resource File.

Like the primary teachers, they also have the tendency not to share their ideas and materials with each other (see the discussion of teaching materials at the primary level).

The teachers rely on their files to organize their skill instruction, but try to incorporate other materials, such as the Weekly Reader, the SRA Organizing and Reporting Kit (1978), Barnell Loft Context Clues (1976), and the Reading Skills Practice Kit II (1976) to supplement the file activities. They also use basal readers for some general developmental work.

The materials used in social studies and science to teach maps and graphs/tables skills are largely from the resource files, but may also be taken from the particular content area, e.g., maps from a classroom atlas, tables from a science activity in which students are collecting data.

● Skill application: Motivating intermediate students to use their skills may be even more difficult for these teachers than the primary teachers (see discussion of skill application at the primary level). In Study Skills and Comprehension there are more skills to learn and they are more complex. There are no ready-made application activites available. As a result, the intermediate teachers do not spend enough time guiding students in the practical use of the skills they are acquiring. In some of the classrooms, however, certain efforts are being made to consider skill application as a priority, and these efforts should be recognized as an important step. One teacher reviews the outlining and Comprehension topic skills before the students begin report writing in science class.

At the end of the year the principal and reading specialist were talking more about skill application and hoping to provide inservice time next year for teachers to devise some Study Skills and Comprehension application activities.

● Developmental reading: In the intermediate grades the distinction between skill and developmental work is not as great as at the primary level. Although students do a number of activities focusing on one skill, much of their work is more general (see discussion of developmental work at the primary level) and may emphasize literary style, poetry, or interpretive activities from basal readers.

The students do most of their specific skill and developmental assignments when their current skill group is not meeting with the teacher. The teachers usually rotate the groups, so that each one has about two-thirds of the skills time to work independently on assigned activities. The students often work in pairs.

Independent reading period. In addition to the regular reading hour, an additional 20 minutes in the primary and 30 minutes in the intermediate grades are scheduled for students to select a book of their choice and read it, uninterrupted. The principal and reading specialist initiated this idea several years ago. At first, the teachers were skeptical of its importance and allotted only a few minutes, but as they saw how well it worked, they became supportive and extended the period another 10 minutes. Some teachers hold the independent reading period after lunch, partly as a quieting down time, and others have it in the morning. Generally, there is no

follow-up to the independent reading, but the students often voluntarily discuss the books they've read with each other and with the teachers. Two teachers have an additional time for silent reading and then discuss the particular stories read.

Staff roles and responsibilities. The staff members in School A include the principal, a reading specialist, teachers, aides, librarian, a special education teacher, and part-time music, art, and physical education teachers (see Table 1). The responsibilities for the first four are discussed in relation to the reading program.

● Principal: The principal has long been in favor of a skill-centered approach to reading instruction, and formed the reading committee to investigate alternative management systems. He met with the committee and examined the Design documents when the program was recommended. Prior to adoption, he attended the 3-day inservice workshop and later worked closely with the reading specialist to implement and to maintain the Design. He remains in touch with the current procedures used by the teachers, primarily through close contact with the reading specialist.

Whenever the reading specialist makes suggestions aimed at operating the program more effectively, the principal provides the needed backup support and tries to ensure that the teachers follow the suggestions. At times the principal has taken the initiative to begin new procedures; for example, he started the school-wide independent reading program, and he has encouraged teachers to emphasize skill application--mainly by providing time for discussion

and for writing activities at an inservice session. He is aware of the importance of open communication between the teachers and principal, and intends to hold individual conferences next year with each teacher each month. He hopes such things as personality conflicts, scheduling, and skill reinforcement con[illegible]as will be more readily aired on an individual basis.

The principal regularly takes the time to look ahead to determine what, if any, new goals his staff should be considering. He frequently has new ideas and suggestions.

From the teachers' point of view, the principal appears somewhat uninvolved with their reading instruction. They believe, for example, he is unfamiliar with many of their grouping procedures. The teachers' beliefs may be due to the fact that he is not involved on a day-to-day basis. The project staff observed, however, that he is providing a good deal of leadership and is quite aware of the overall implementation plan.

● Reading specialist: This person is responsible for running the skill-centered approach to reading instruction. He is available for consultation with the teachers and helps with testing and providing them with the ditto sheets and testing booklets they need. He informally evaluates the students' skill attainment and general progress in reading. Through individual and small group discussions, he attempts to keep in touch with the procedures each teacher is using and what problems are developing. He takes initiative in making changes in the program, such as when to start the primary students

in Comprehension, but first he confers with the principal and secures appropriate backup support. He believes the principal's strong support of him and the Design is crucial in keeping the program operating, especially if modifications in implementing procedures become necessary. The reading specialist believes that when administrative support and direction are lacking, no other person in the school can pull the whole reading program together. The result is that little unity exists--the teachers' testing, grouping, and teaching procedures all become different, and resentment among staff members builds because teachers assume unequal amounts of work.

● Teachers: The teachers are responsible for daily instruction and planning so that a majority of students' individual needs are met. They do their own grouping, teaching, testing, and score recording. They identify appropriate skills and the order in which to teach them. They are encouraged to use a variety of activities to develop skills, instead of relying entirely on worksheets.

The teachers vary in their abilities and teaching methods, but all manage to form groups and gear instruction to individual needs. A few teachers are doing a superb job and attribute their ability to manage a number of ongoing small groups to the variety of materials they have. Each spring they are given a sum of money to purchase additional materials.

Some of the teachers have fully committed themselves to the program, and take initiative on their own, such as changing a schedule that isn't compatible with student needs. Others primarily respond to directions from the reading specialist or principal.

● Aides: The three aides do not work directly with the reading program. They work 4 1/2 hours per day on different time schedules. Their responsibilities are clerical, such as running off dittos, and include playground and lunchroom duty.

Implementation issues. During the project staff's several visits, School A's personnel discussed with us a number of concerns. A few of the main ones are presented here.

● Sharing ideas/materials: The principal and reading specialist have observed that, for various reasons (e.g., personality conflicts, lack of confidence in others' abilities), the teachers operate mainly independently. In many cases, they are probably duplicating work efforts, which is inefficient when planning time is at a premium. The principal is going to focus on this problem next year, by encouraging teachers to share the application activities they will devise.

● Grouping early primary students: The teachers generally want to wait several weeks in the fall to begin grouping and the principal believes they should form groups right away. Through discussion, the idea was proposed that first-year students would concentrate initially on sight vocabulary, and older primary students could be grouped immediately for the basic, oral and written-oral skills (Otto & Askov, 1974) they need at Levels A and B in Word Attack and Comprehension. As they acquired these skills, they would receive instruction in the written skills at Level C.

The project staff suggested the Study Skills activities in the Teacher's Resource File at Levels A, B, and C should be considered.

They provide an excellent basis on which to build other skills. For example, learning preposition meanings (e.g., up, down, under, over) is important to understanding relationships between people and objects. The teachers must realize they can use activities in a resource file without specifically implementing the element, if handling another profile card and forming groups is unmanageable at the time.

● Beginning Comprehension skills: Before implementing the Comprehension element, the reading specialist and principal decided that students should master a corresponding level of Word Attack before beginning Comprehension. This idea is sound in theory, but turned out to be impractical. They found that some students, who were not through a certain level of Word Attack, say Level B, by spring, were not being grouped for any Comprehension skills until very late in the year. The principal is changing this procedure so that all students are exposed to at least some Comprehension skills at any period of their skill development. The project staff hopes to see more emphasis on the Level A and B Comprehension skills, since these levels introduce very basic comprehension skills: Identifying the topic of a picture, the relationship between an oral statement and a picture, and the first and last events in an oral statement.

● Skill application: Most of the staff members agree that not enough skill reinforcement, let alone application, is being done. The teachers argue there is not enough time to familiarize themselves with all the skills in an element so that spontaneous review or

reinforcement becomes natural, nor is there time to develop appropriate application activities. In response to this problem, the principal and reading specialist held an inservice session so that teachers could write down several ideas for applying the skills. In devising such activities, the teachers became more acquainted with the skills and acquired some practical activities for their classroom. Next year, specific sessions will be provided for devising and using these activities. One idea is to schedule a week between skill cycles, where students do nothing but use the skills they have in a variety of situations. Perhaps such a schedule will help teachers establish application as a priority in their skill instruction.

● Alternating instruction in the elements: Some teachers have become burdened by trying to form skill groups in more than two elements at a time. The teachers report they become caught up with the idea of "getting kids through the skills." They concentrate on the day-to-day teaching and testing, and eventually find that marking down a student's "mastery" score is what gives them the most satisfaction. They forget about the overall picture, which should be viewed, not on a daily or even weekly basis, but on a monthly or semiannual one. The students' reading abilities are most likely to improve, if they are exposed--in an orderly fashion and at a relaxed pace--to the skills they need with ample time provided in between skill group cycles for <u>using</u> the skills. The administrative personnel in a school need to reinforce this idea and discourage teachers from tackling either too many skills at once or even introducing related

skills at too fast a pace. One way to slow down the pace is to alternate instruction between the elements, limit instruction to two elements at any one time, and provide a variety of contexts in which to use the skills, once acquired.

● Individualizing instruction all day long: As many School A teachers implemented the Design and formed skill groups, they began to think they should form "groups" in all parts of their curriculum. The teachers who tried it, gave up quickly. They soon realized that homogeneous grouping is fine for some activities (e.g., specific skill work), but large, heterogeneous groups offer a nice balance to skill groups and a welcome change for everyone. The project staff emphasized to the teachers that meeting students' individual needs all day long is an inhuman task, and having different teaching strategies offers needed variety in the curriculum.

School B

School B, located in a western suburban community, is one of 80 elementary schools in a 783-square mile school district. The socioeconomic status of the school community is mainly high-middle to high. Additional background information is included in Table 1. The school opened in 1971 and is a "semiopen" building with temporary dividers separating grade levels. To accommodate an increasing enrollment, the school began operating on a year-round schedule in August 1977. The approximately 590 students are divided among three tracks, A, B, and C, with only two tracks in attendance at any one time (see Table 1). The students are grouped according to grade

levels (except for grades 2 and 3 which are grouped together), and most of the teachers find the opportunity to team or departmentalize within their level for instruction in some subjects.

Most of the teachers had been in School B prior to 1977 and were quite familiar with the Design and implementation procedures used in the school. The principal, new to the school in 1977, transferred from another elementary school in the district. The principal who had been at School B prior to the 1977-78 school year was asked to open a new school in the district, which we have described in this report as School C.

How a skill-based approach got started. The central administration was responsible for initiating the district-wide adoption of a skill-centered approach to reading instruction. They selected the Wisconsin Design as their management system and then attended several workshops sponsored, by the Wisconsin Research and Development Center, to familiarize themselves with it. They were responsible for training teachers in each of the 80 schools in the Word Attack, Study Skills, and Comprehension elements. They remain the primary coordinators of the reading program, and have mandated that each school use the Design. Every spring the central reading department personnel collect Design test data from all of the schools. Some of this data has been summarized (Kamm, 1978).

Elements implemented. The teachers at School B provide skill instruction in the Word Attack, Study Skills, and Comprehension elements of the Design. The Word Attack element was implemented in

1972, 1 year after the school opened. One year later in 1973, the teachers began inplementing Study Skills. In 1974 they began using the Comprehension element. At the present time skill instruction in each element occurs about every 4 weeks. Kindergarten teachers begin using Design Word Attack when they think their students are ready, usually sometime between October and January. Students in grades 1-4 and some grade 5 students are involved in Word Attack skill instruction, and all students in grades 1-6 are grouped for Study Skills and Comprehension instruction.

Parent involvement. School B parents generally show interest in their school, as demonstrated by their high turn-out for social events. Their attendance at most of the curriculum-related events is not quite as good. The parents have formed a Parent-Teacher Advisory Board which meets once a month to discuss their concerns related to school operations. Some parents do volunteer work on a regular basis. When the Design was implemented, it was introduced to the Parent-Teacher Advisory Board first. Then, at the fall open house, the teachers explained the Design to all of the parents in a formal group presentation to acquaint them with the basic operations of a skills management system.

Initially, the teachers designed a report card describing all of the Word Attack skills, but the card proved to be too detailed for parents to understand. At the present time the teachers use profile cards in conferences with parents and find the cards effective in communicating students' progress.

General reading program at the primary level. The general reading program at the primary level is separate from Design skills instruction. Each homeroom teacher divides his or her class into approximately three homogeneous reading groups, according to ability, and assigns a basal reader series to each group. Usually the Benziger Linguistic series (1976) is used with the low groups, the Lyons and Carnahan Young America series (1974) with middle groups, and Ginn 360 series (1973) with high groups.

The general reading period is divided into three half-hour segments, with different types of learning activities emphasized in each one. During one segment, the students in one of the three reading groups, say, Group A, are involved in the "circle lesson." This lesson is teacher-directed and based on the sequence of the basal reader series assigned to that group. The circle lessons usually focus on vocabulary, word attack, and comprehension development. If skills are presented, they are taught whether or not the students have previously "mastered" them during the Design skills time. When reteaching of a skill(s) does occur, the teachers view this as an advantage, because they are assured that the skills are "covered" adequately. The project staff observed much reteaching of skills and believe the coordination of Design skill instruction with the general reading program is minimal (see discussion of implementation issues.)

During the next half-hour segment, Group A students work on independent activities. These activities generally involve completing worksheets or workbook pages from basal readers and are assigned

during the circle lesson. The focus of the independent activities is usually on comprehension development, however, many of the worksheets stress word attack skill development. While the Group A students do independent activities, they are "monitored" by the teacher (who is directing a circle lesson with another group) or a lay assistant.

In the third half-hour segment, Group A students in grade 1 do language arts activities, and gross and fine motor activities, such as penmanship and cutting and pasting. At the grade 2 and 3 level, Group A may spend 2 days at interest centers (where students are involved in arts and crafts projects), 2 days on teacher-assigned, reading-oriented activities, such as making murals, and 1 day in the Learning Materials Center (LMC) for library enrichment. All of these activities have been planned by the teachers, but are usually supervised by lay assistants.

During each half-hour segment, the teacher directs the circle lesson and rotates the three groups so that all students are exposed to the three main types of activities. For example, Group B might do the independent activities first, go to interest centers next, and have circle lesson last. Group C might go to the interest centers first, have the circle lesson second, and do independent activities last.

General reading program at the intermediate level. The general reading program is separate from Design skill instruction at the intermediate as well as at the primary level. At grade levels 4

and 5 teachers divide their homeroom classes into approximately three reading groups, based on the reading level of the students. The teachers usually select the Scott-Foresman Open Highways basal reader series (1974) for their low groups, the Lyons and Carnahan Young America series (1974) for their middle groups, and the Ginn 360 series (1973) for the top groups. The teachers use the sequence in the readers as a guide to their developmental instruction. The main focus is on vocabulary and comprehension development, with some incidental word attack development. The fourth grade teachers have organized an activity file for each basal reader story for the three series they use. These files include comprehension, interpretive, and language skills activities. They usually require students to read and answer questions written on the chalkboard or do a work-sheet based on what they have read. When a group is involved in a teacher-directed basal reader lesson, students may take turns reading orally, use their glossaries to find meanings of new words, and discuss stories they have read as part of their assignment. Spelling is also taught during this time.

The fourth and fifth grade teachers have coordinated their general reading program so that any fifth grade students reading below grade level work with grade 4 students, and any fourth grade students working above level work with grade 5 students. As a result, the fifth grade teachers work with students reading at and above grade level only.

Many of the general reading activities are done independently,

and the teachers provide direction as needed. Students work on assignments and interact with teachers when they have questions or when they are ready to have work checked.

The sixth grade teachers team for general reading and math instruction, and therefore, one teacher is responsible for teaching reading to all sixth grade students. The students are grouped according to their reading ability and are assigned one basal reader. The lessons focus on comprehension and interpretive reading skills development. Some students work on contracts, which provide outlined assigments for a period of time. When they have completed the work in the contracts, which usually results in a packet of worksheets, they check their assignments and go on to another contract. Contracts and other assignments are based on the basal reader sequence. Occasionally, students may be brought together to discuss a story or a worksheet. Students also work in SRA kits (1974, 1975) during the general reading period.

Teaching reading skills. Design reading skills are taught to all students in the school during a special 20-minute period, which is separate from the general reading program time. During these 20 minutes the teachers handle one or more skill groups that have been formed on the basis of the students' common skill deficiencies. During this designated skills time, the teachers use a number of teaching procedures which are discussed in this section.

● Forming skill groups: Prior to 1977, the principal was responsible for examining students' profile cards and assigning

them to appropriate skill groups. With the change in leadership in August 1977, however, the teachers assumed the responsibility for grouping students. The teachers at different grade levels are not responsible for doing the grouping for different elements, i.e., two primary teachers group for Word Attack instruction, two fourth grade teachers group for Comprehension, and two grade 5-6 teachers group for Study Skills instruction. For the Comprehension and Study Skills elements, the teachers group the students in grades 1-6. For Word Attack, they group only the students in grades 1-4 and some students in grade 5. The older intermediate students do not receive specific instruction in decoding skills.

The entire grouping procedure is best explained by considering the following example: At the beginning of the year the staff decided to group for Word Attack skill isntruction first. Two primary teachers were appointed to group the students on the basis of the Word Attack profile cards. The two teachers spent about 1 1/2 hours forming the groups. (It takes about 2 hours to group for Study Skills and Comprehension.) Then each staff member, including classroom teachers, special teachers (music, art, and physical education), lay assistants, and the LMC director, was assigned a Word Attack skill to teach and given the profile cards of the students needing instruction in that skill. On a Tuesday all students and teachers assembled in the gym. After the teachers called their groups together, the students and teachers went to their area of skill instruction. During the remaining minutes of this first day, the teachers introduced the

skill to be taught and became acquainted with the students in their groups. From 8:55 to 9:15 for the next 6 days, the teachers and students worked in their groups on the assigned skill.

While the skills in the Word Attack element were being taught, the sixth grade students and teachers and most of the fifth grade students and the two fifth grade teachers were not involved in skill instruction. These students either had independent study time or they studied, as a group, a special topic selected by the teachers.

At the end of the instructional period, each teacher gave the posttest for the particular Word Attack skill and recorded the results on profile cards. Then they formed "pregroups" among the students in their skill group, according to the skills the students had not yet attained. This pregrouping procedure makes the larger grouping procedure carried out by the two teachers easier. After pregrouping, the teachers returned their cards to the appropriate teachers for final regrouping.

In order for the grouping procedure to run as smoothly as possible, the teachers alternate instruction among the elements. For example, after posttesting for the Word Attack skills was completed, the teachers began a Study Skills instructional period. The students' Study Skills provile cards had been sorted into groups during Word Attack instruction, so the teachers could begin Study Skills instruction immediately. Likewise, at the end of the Study Skills instructional period, the teachers began a Comprehension instructional period, since those cards had already been sorted. After the

Comprehension period was complete, they repeated the entire cycle again, staring with Word Attack.

The project staff is impressed with the School B staff's organization, but believes the teachers are proceeding at too rapid a pace. They need more time between instructional periods to reflect on their grouping scheme and to identify and confront pitfalls, such as putting too much emphasis on teaching skills and not enough emphasis on using them.

● Testing skills: The first grade teachers wait about 3 weeks in the fall before testing first year students with either Level A or B Word Attack tests. At testing time, they administer only those Level B tests that teachers read to students. They have found that students become frustrated when they have to do the reading themselves. This break-in testing is done during developmental reading time. After this testing is complete, the students are placed in skill groups for instruction.

Throughout the year, when a group of students have completed one level and needs to be pretested at the next level, a special group is formed. A staff member is assigned to administer the whole battery of tests to these students. This is done during the 20-minute skills time and usually takes the entire 2-week instructional period.

Posttesting is done by each skill group instructor. Usually these tests are given on the last day of the instructional cycle. For example, on Tuesday students are assigned to their groups, from Wednesday through the following Wednesday they are instructed in the

skill, and on Thursday they are given the posttest for that skill. Friday and Monday are makeup testing days.

Some teachers give a test for the assigned skill on the first day of instruction to determine how many students already know the skill. If many students pass the test, the teacher usually considers the results as posttest scores, and selects and teaches another skill (see discussion of implementation issues). If a test is not given the first day and 2 or 3 days later the teacher judges that the student knows the skill, then he or she may be given a posttest at that time. If the student masters the test, he or she is allowed to do independent activities or join a different skill group.

When students do not master a skill after instruction, they are regrouped for that skill at a later time with a different teacher. One problem for students repeating skill instruction is that the teachers often use the same activities to teach skills. Consequently, these students are frequently required to do the same work again, despite the fact that they have a different teacher (see discussion of implementation issues).

In conducting testing, the teachers seldom use the performance tests for the Word Attack Guides to Individual Skill Assessment. They report that these tests take too much time. In some instances the LMC director has given performance tests at the teachers' requests.

● Selecting skills: The two teachers responsible for forming the large groupings base their selection of skills to be taught on the number of students needing certain skills. They try to arrange

workable groups of 15 to 20 students. Generally, 85 to 90% of the students are placed in skill groups. If students do not fit into any skill group, their homeroom teacher assigns independent study activities (e.g., reading games or free reading). The project staff observed that many of these students end up doing "busy work," rather than meaningful and constructive reading activities.

● Organizing and using materials and activities: The teachers rely on the Teacher's Resource Files to plan their lessons. The files and the Design tests have been organized and placed in a central location near the teachers' workroom and the LMC. The materials for each element are filed separately and the tests are filed in the same location but in separate drawers. Levels A through D of Word Wizard (1975, 1976), the supplementary Word Attack activities, are used by many teachers. Other supplementary materials that are available for teacher use include: (a) Allyn and Bacon, Study Skills for Information Retrieval Series (1974); (b) SRA, Graphs and Pictures (1968); (c) MacMillan, Spectrum of Skills (1973); (d) Scott Foresman, The New Basic Reading Program (1974); and (e) Houghton Mifflin, Individualized Reading Skills Program (1975).

Reading representatives are responsible for keeping the files organized and ordering new materials and tests. The files are kept in good order and teachers have little trouble locating the materials they need. A few teachers have made and used games and other types of activities to teach the skills. Games are kept in the individual teachers' rooms and are seldom shared.

The worksheets and transparencies in the resource files are used extensively by the teachers and their assistants--to the point where very few other materials are used. Particularly at the primary level, for example, no content materials are used to teach the skills. With the few exceptions, the project staff observed that most skill lessons are comprised of some type of worksheet activity.

● Providing for skill application: The teachers in School B provide few specific opportunities for students to apply the skills they are learning. Several reasons for this are apparent. First, the teachers work with different students for skill instruction than they do during the rest of the day. Consequently, they are not aware of previous skill attainment of either the students in their general reading classes or those in different skill groups. Second, the teachers have not coordinated Design skill instruction with their developmental reading program or the rest of the curriculum. As a result, the teachers reteach skills at different times of the day, instead of teaching them once, e.g., during skills time, and then providing opportunity for students to use the skills, e.g., during the general reading period. In essence, the skills are introduced several times, but opportnities for application are rarely provided (see discussion of implementation issues).

● Teaching skills at the kindergarten level: Even though kindergarten is not part of the school-wide grouping scheme, the Level A Word Attack skills are tested and taught by the kindergarten teachers. Their reading program is based on a combination of the Houghton Mifflin

Getting Ready to Read (1971), Alpha Time (1973) readiness program, and the Wisconsin Design Word Attack element.

The teachers give the Level A tests to students who are ready, near the beginning of the school year, and provide instruction in the skills at least twice a week. Most of the teaching is done through learning centers. At these centers the students develop independent work habits, as well as learn specific Word Attack skills by doing special activities, mainly from the resource files and Word Wizard (1975, 1976).

Staff roles and responsibilities. The School B staff includes the principal, teachers, reading representatives, lay assistants, special teachers, and the LMC director. In this section their roles and responsibilities regarding implementation of the Design are described.

● Principal: The 1977-78 school year was the principal's first year in the school. His major objective was to get to know the staff and students and to understand how the reading program at School B is organized. He has expressed some legitimate concerns regarding the procedures used to implement the Design, but has not attempted to make any major changes. Although the previous principal assumed responsibility for grouping students for skill instruction, he has left this responsibility to the teachers. He is currently working with his staff to improve communication and make some changes (e.g., increase teachers' awareness of students' skill attainment) for next year.

● Teachers: A total of 21 1/2 teachers are assigned to the three tracks at School B. About 14 of these teachers are in the school at any one time (see Table 1). Their primary role, related to implementing the Design is to plan and provide skill instruction for students, although they carry out break-in testing, posttesting, and pretesting as well. They are also responsible for scoring tests, punching profile cards if students master a specific skill, or indicating on the cards that students have had instruction if they did not master the skill. The teachers also group students for all three elements as explained in the section on forming skill groups. They are supposed to add teaching activities to and delete them from the resource files; however, most of this work is done by reading representatives.

Regarding the planning of instruction, the project staff believes the teachers should work together, instead of individually. Talking with one another might help them discover ways to group more effectively, provide more meaningful activities for students not in skill groups, and incorporate more skill application in their total curriculum.

● Building reading representatives: The district reading committee is composed of reading personnel from the central office and one or two representatives from each school building. The committee meets periodically to discuss issues related to reading instruction in the district and conducts surveys when necessary. Contents of the discussions and any pertinent information is then passed on to all teachers.

In addition to relaying information from the central reading department, the reading representatives keep reading supplies in stock and up-to-date. They are generally responsible for coordinating and monitoring reading instruction in each school. The LMC director and a grade 2-3 teacher are the reading representatives at School B. They are very involved in the reading program and have organized and kept all materials up-to-date. Both people have a good knowledge of reading instruction and have been key figures in implementing the Design.

● Lay assistants: School B has 15 half-time and 2 quarter-time lay assistants (aides) for grades K-6 for the three tracks. The two quarter-time assistants work in the kindergarten. One of the half-time aides is assigned specifically to the LMC, and one works only in the communication center.[1] Each teacher is entitled to 2 hours of aide time per day. The lay assistants' responsibilities include: (a) planning their own lessons for skill instruction; (b) teaching a skill group; (c) administering tests; (d) scoring tests; (e) notching and recording information on the profile cards; (f) helping teachers with grouping students for skill instruction; (g) recording growth data for each student at the end of the year; (h) helping students who are having problems during developmental reading time; (i) monitoring "centers groups" at the primary level during developmental reading (e.g., helping students

[1]This term refers to a separate classroom of students who have some type of communication or perceptual problem, such as a hearing or speech impairment.

with arts and crafts projects); (j) duplicating worksheets for teachers; and (k) correcting papers.

Most of the aides report that they like being involved in the curriculum. Some lay assistants have attended inservice sessions on the Design--either before or after using it--and others have not. Most of them thought the inservice sessions were helpful, but they need more training in how to plan skill lessons, teach skills, and discipline students, if they are expected to teach skill groups. They would also like to be assigned smaller groups (see discussion of implementation issues).

● Special teachers: The music, art, and physical education teachers are involved in skill instruction. Their major role in the implementation of the Design is to plan and teach skill lessons to students needing specific skills and to administer tests. They use the resource file to plan instruction and often pretest students at the beginning of the lesson to find out who does and does not know the skills. The project staff believes this extra testing should not be necessary; each group should be homogeneous enough that everyone in it needs work in the skill. The project staff suggested that in groups where masters are identified, application opportunities be provided, instead of introducing a new skill. The special teachers responded, however, that they are not familiar enough with any of the skills to offer instruction not included in resource files (see discussion of implementation issues).

Generally, the special teachers view their involvement in skill instruction very positively. They believe students have more respect for them as teachers. The special teachers have had very little inservice training and most believe they need more specific training on how to use the Design and teach skills.

● LMC director: The LMC director is also a reading representative, and therefore, was instrumental in the initial stages of Design implementation. She still plays an important role in skill instruction. She is responsible for planning a skill lesson and teaching the skill to a group of students. Sometimes she administers performance tests to certain students if teachers request help. She has helped with grouping and spends much time keeping the files organized and adding new materials as they are received.

The project staff believes that although the LMC director is an excellent resource person, her expertise is not fully used by the teachers. During skills time she is often assigned to test students or teach a skill unrelated to the area of reference skills. Because of her knowledge and ready access to reference sources, she would be most effective if she worked with students needing these skills.

Implementation issues. Through observations and interviews with staff members, the project staff identified several implementation procedures which concern school personnel and which project staff think should be changed to be more effective. These procedures include providing for skill application, grouping on a school-wide basis, assigning skills to teachers, testing, and communicating.

● Skill application: Like the School A teachers, the School B teachers are not providing sufficient opportunities for students to use the skills they are acquiring. The main reasons for this difficulty are discussed in the School A section, the reading program at the primary level. In addition to these basic reasons, however, the project staff thinks the School B teachers find application difficult because of thier grouping schemes.

Because students are grouped on a school-wide basis, the teachers frequently (a) do not know the students in their skill groups, and therefore, do not know their skill attainment; and (b) do not know the skill attainment of their own students in the content classes (because these students have had other teachers for their skills lessons). When the teachers are unaware of the students' current skill status, then skill reinforcement, as well as application, is difficult to carry out. Also, the School B teachers tend to teach only a small range of skills within each element. As discussed in the School A section, a lack of knowledge of the skills inhibits a teacher's ability to spontaneously reinforce or provide for application.

The separate time for Design skills may also discourage teachers from providing application opportunities. The separate time gives special emphasis to skills and ensures that all teachers do indeed teach them. The tendency, however, is for the teachers to treat the skills as a separate subject in the curriculum. Little effort is made to integrate them into the content areas. The project staff has suggested that the best way to keep from teaching skills "in

isolation," when a separate skills period is desired, is to tie the skills to particular content materials the students are using. For example, paragraphs from social studies and science chapters can be used to study sequence and central thought skills; a writing assignment can become a context for practicing outlining.

Another important aspect in helping students learn to use a skill is to note when they have been introduced to a particular skill in a group, and then expose them to the skill in other ways. Once students are familiar with a skill, they may learn it more readily if they can apply it in real life situations. For example, in learning how to determine the sequence of a passage, students may need to do initial drills on worksheets, but later they should look at the sequence of passages in different content texts. If they simply repeat the drills on worksheets, they are not likely to see the need for learning the skill and less inclined to retain it.

The project staff has observed that the School B teachers largely consider the Design skills as separate from their general reading program (the basal reader), and have not fit the two together. As a result, many skills are retaught at different times in the day. The instruction is repetitive and consists mainly of developmental activities.

Many of the School B teachers are aware of this problem and hope to better integrate the skills into their curriculum. The project staff suggested they discuss this issue together and take more time to plan their skills instruction.

● School-wide grouping: This scheme, where students in grades 1-6 are grouped together for skill instruction, has both advantages and disadvantages. Some important pluses are (a) students view every teacher as "their" teacher and know more staff members; (b) teachers know more students; and (c) teachers become acquainted with different age-level students. Some important disadvantages include: (a) the teachers are unaware of the skill attainment of the students in their groups, so they have trouble reinforcing the skills acquired and attending to individual learning styles; (b) some students may be grouped with students who are either much younger or older; and (c) no schedule can meet both primary and intermediate needs, e.g., a daily 20-minute period for some upper level Comprehension and Study Skills is not as effective as a 45-minute period three times a week.

The teachers are talking about these concerns and thinking of reorganizing according to primary and intermediate units. The project staff believes these problems can be easily dealt with, if they are identified for discussion at planning meetings.

● Assigning skills to teachers: The two teachers who do the grouping for an element also select the skills to be taught and assign them to the teachers. One problem is that sometimes aides and special teachers, instead of regular teachers, are assigned difficult skills to teach or end up with a large number of students in their groups. One way to increase effectiveness of instruction is to consider each teacher's area of expertise when assigning skill

groups. For example, aides and special teachers should be given primarily small groups and testing groups (if any). The LMC director should be given Reference skills; teachers interested in math, graph skills. Care should be taken, however, that the same teachers do not always teach the same skill(s), since teachers benefit from becoming familiar with a range of skills. General skill application is difficult for a teacher who is knowledgeable about only a few skills in each element.

The rationale behind including aides and special teachers in skill instruction is that more and smaller skill groups can be formed. In addition, students tend to have greater respect for them and perceive all staff members as teachers. Most special teachers and aides have a very positive attitude about being involved in skill instruction. Their main objections are not being qualified to teach certain skills, not having any Design inservice training, and (the aides) not having any training in group management. If these problems can be resolved, all staff members would be content with this unique scheme.

● Testing: Many School B teachers are concerned with the amount of testing taking place. The teachers are pretesting students at a level before they begin it, and sometimes, testing those same skills before beginning work in the skill gorup. The project staff advised that the pretesting strategies in the planning guides be followed more closely, that is, give the tests in the suggested clusters (not the whole level). When a student does not pass a pretest, he or she should begin skill group work and not take any more

tests at that level. Also, instead of administering tests again at the beginning of a skill group (to see if the students have picked up the skill in the intervening time between the pretest and skill group), the teacher should note those students who seem knowledgeable about the skill and assign them application activities. These students can then be posttested at the end of the group with the other students. These students should not be given work in any new skill during a current grouping cycle.

An additional concern is the time required to give the performance tests and Word Attack Guides to Individual Skill Assessment. Finding time is always a problem, but the teachers should consider that some of the highly important skills in the sequence cannot be adequately tested in a group situation, and are thus assessed individually, e.g., Cardinal Directions at Level C in Study Skills. In this case, basic concepts crucial to learning more complex skills are not introduced when such a beginning skill is omitted. Skills requiring performance tests should at least be discussed, if not tested.

The Word Attack Guides are useful for students who need additional work in a skill and have trouble performing on group tests. Many teachers are unaware that these helpful instruments exist.

● Communication: A more synchronized effort can be made if the staff talks together about a program everyone is using. The staff needs more frequent planning and discussion meetings with the principal to bring up and out daily problems. These meetings can be brief.

This discussion about a select few School B implementation procedures does not present the entire range of issues, but it does point out some important concerns the teachers have at this time.

School C

School C opened in August 1977. It is organized into a kindergarten area and two primary and two intermediate pods (areas with two to four separate rooms each), and is located in the same school district as School B. School C is similar to School B, perhaps because it is also operated on a year-round basis and is headed by the principal who was previously in School B. The project staff elected to study School C for one main reason. We wanted to observe the initial procedures used in a school to implement a skill-centered approach to reading instruction. School C was ideal because the principal is knowledgeable about the Wisconsin Design and committed to using it. She is also well organized and a strong leader. She demonstrated these abilities at School B by her active participation in skill grouping procedures and in her unique approach to implementation. The staff thought these abilities would be particularly useful in a new school and wanted to learn how the principal would begin implementation procedures.

The project staff determined that the basic approach to implementation was so similar to the one used in School B, that the two need not be described separately. The reader can refer to the earlier School B discussion to learn, generally, how implementation is managed in School C. The remainder of this discussion is on start-up procedures in School C and on observations not made in School B.

How the Design got started. Because using the Wisconsin Design district-wide is mandated by central office personnel, the district reading department was anxious to select a principal for School C who was knowledgeable about the Design and could conduct inservice sessions to explain implementation procedures to teachers and answer their questions.

The principal they chose was notified in the spring. She immediately began interviewing teachers and spent the summer preparing Design materials for implementation in fall 1977. She wanted to use a school-wide grouping plan similar to the one she had used in School B. Most of her staff members were familiar with the Design, since they had voluntarily transferred from other schools in the district. They were not familiar, however, with the particular implementation plan that she wanted to use.

When school began, the principal personally tested those students who were entering School C from outside the district to determine their appropriate placement in Design skill groups. (Students from within the district had already been placed.) After examining the testing results, she grouped all of the students according to their skill deficiencies. Then she held an hour long after-school inservice session, which the project staff observed. All teachers from the two starting tracks (see Table 1) were required to attend this meeting. (The off-track teachers received some informal orientation when they began teaching in October.)

At the meeting the principal stressed the characteristics of her particular implementation scheme. (She did not review basic operations of the Design, such as using the Teacher's Resource File, since she assumed the teachers already knew them.) She introduced the grouping plan for School C (see School B discussion) and emphasized that it necessitated the teachers' committing themselves to teaching skills on a systematic schedule. She explained that the skills are taught at the same time in every classroom and this special 20-minute period is held in addition to the regular reading and content periods. After discussing her plan, the principal explained how skill groups would be assigned to teachers, where and when the groups would meet, and how to organize skill instruction.

The principal ended the session with an outline of the basic steps to follow in the implementation process. She said they would begin implementation with the Study Skills element, which would involve all the teachers. The Word Attack element would be implemented next and would involve only teachers of grades 1-4. The principal decided not to implement the Comprehension element during the first year. Shortly after the meeting, the teachers began Study Skills instruction.

The project staff thought that implementation began immediately because of the teachers' and principal's familiarity with the Design, and the principal's strong leadership and commitment to skill-centered instruction. Knowing the Design prior to implementation enables

a staff to anticipate needs, such as the amount of time to teach and test different skills. When a school staff is not familiar with a skill-centered approach, implementation must proceed more slowly; for example, a principal might have to wait a year or more between introducing different elements, so teachers become thoroughly familiar with teaching and grouping routines.

Observations about the implementation procedures. In an interview late in the year the principal emphasized that initial implementation of a skill-centered approach is easier if the principal takes the major responsibility for establishing the main procedures and organizing materials. She added, however, that after the "wheels are in motion," most of the responsibility for managing the day-to-day procedures (e.g., testing, forming skill groups) should be transferred to the teachers. If possible, they should be given additional planning time to manage the Design, but they must participate in making decisions and "running the program." This helps them believe the program is theirs and they can make changes in it. They are more committed.

In other schools not described in this report, principals have commented that managing the Design should be left entirely to the teachers. The project staff believes an administrator needs to strike a balance between involving the teachers in making decisions and independently establishing the implementation procedures teachers are to use. Assigning too much responsibility too early, on the one hand, can kill an innovation, because the teachers may not have

enough experience to know how to begin. On the other hand, not giving teachers enough responsibility for implementation may result in lack of commitment and understanding.

Other observations by the project staff pertain to specific procedures. By spring, the principal questioned whether the school-wide grouping scheme could be very effective in a school as large as School C (see Table 1). She and the teachers planned to discuss forming skill groups within each pod, instead of across the whole school, so that teachers would know students in their skill groups better.

A single, centrally located resource file was set up when implementation began. After awhile, many teachers complained about the poor organization--worksheets and complete folders were missing. The principal decided that one person had to be responsible for the files, so she appointed an aide. The teachers--as a group--were not willing to keep the folders in order. Another problem was that the two School C reading representatives did not actively support the Design as the two School B representatives did. For example, they did not assume responsibility for organizing the resource file and helping with skill grouping.

Although the kindergarten is not involved in school-wide grouping, the teachers incorporate the Design Word Attack and Study Skills elements into their reading readiness program, which is based on Alpha Time (1973). One kindergarten teacher schedules reading activities for 1 hour, three times a week. One activity, for

example, involves an individualized reading packet, containing a variety of worksheets intended to develop particular Design Level A skills that a student has not mastered. This represents one way the Design can be integrated into the daily curriculum.

The intermediate teachers in one track were consistently helping their students to apply Design skills. The project staff was delighted to observe skill application activities, since most teachers in the four schools concentrated on teaching the skill, not on helping students use them. The teachers had selected certain references and map skills from the Study Skills element and were teaching them in science and social studies classes. For example, outlining was taught in preparation for a science report and the concepts of latitude and longitude were taught in conjunction with a unit on life in South America.

By June 1978 the principal and teachers were beginning to evaluate the strong and weak aspects of their approach to implementing the Design. Over the summer term they expected to make several changes pertaining specifically to grouping procedures and scheduling problems, such as the lack of free time during the day for planning. The project staff thought it would benefit the staff to schedule planning meetings--for the whole staff if school-wide grouping continues, or within pods if the grouping scheme changes--to systematically review the implementation process and identify successful and unsuccessful procedures.

School D

School D is located in a middle-class suburban area of a large midwestern city. The district is involved in a desegregation effort, and therefore, some students are bused into School D, which has increased its black population to about 31% (see Table 1) School D is an IGE[2] school. It was chosen for this study primarily because each of the five units in the school has a different approach to organizing its skill-centered reading instruction. The project staff was intrigued with the idea of so many approaches within one school and eager to learn of the various implementation procedures.

The start of a skill-centered approach. School D opened in January 1972. The principal wanted the teachers to concentrate on individualizing instruction, so she investigated the organizational system used in IGE schools. She realized that many changes--e.g., setting up multiage units instead of self-contained classrooms--would have to take place before School D would become an IGE school. In the fall the principal held an inservice session to explain these necessary changes to the teachers. Shortly after this session, several people from the district--including central office reading

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[2]Individaully Guided Education (IGE) is a school organization aimed at providing for students' individual differences through statements of behavioral objectives, an instructional program designed to achieve the objectives, procedures for placing students and for monitoring their progress, guidelines for organizing instruction, and measurement tools and evaluation procedures.

personnel, principals, and a reading resource teacher (a teacher responsible for organizing the reading instruction in a school)--attended two workshops sponsored by the Wisconsin Research and Development Center. One workshop covered how to make the necessary changes to become an IGE school, and the other workshop was on implementing the Wisconsin Design for Reading Skill Development, a specific approach to reading instruction that is compatible with the IGE concept of focused instruction. The principal thought the Design would be an excellent vehicle for improving students' reading skills and establishing School D as an IGE school. After the Research and Development Center workshops she and the reading resource teacher conducted their own Design inservice sessions for the teachers.

By the middle of the school year (1 year after opening) School D was operating as an IGE school and the staff was implementing the Design Word Attack element. The teachers--under the principal's leadership--had begun to group students from different grades and units for skill instruction.

The following year School D was selected by the district's central administration to field test the Design Study Skills element. First, the teachers familiarized themselves with the skills in training sessions conducted by the reading resource teacher and then began instruction by alternating it monthly with Word Attack instruction. They taught all Design skills at a specially scheduled time, separate from and in addition to the regular reading period.

Gradually, the teachers realized a change in some of their implementation procedures was desirable. During the 1976-77 school

year they decided to incorporate Word Attack skill instruction with developmental reading instruction and Study Skills instruction into the content areas, so the Design skills would be taught in conjunction with the rest of the daily curriculum. The principal was reluctant, since she thought this new scheme would give some teachers an excuse not to teach the skills at all. She decided to monitor skill instruction closely by establishing specific goals requiring the teachers to cover a certain number of skills each month. Many teachers resented these goals while others thought they were indicative of strong leadership, necessary to implementing a skill-centered reading program. In spring 1977 the principal was transferred to a new school and another principal (from the district) was assigned to School D. He assumed his responsibilities in the fall.

Elements implemented. In fall 1977 the new principal allowed the unit leader and teachers to implement the Design according to their own wishes. For example, one unit teaches Design skills in a separate "skills period" and another incorporates them into developmental reading instruction by combining skill and basal reader lesson plans. Each unit, however, continues to use both the Word Attack and the Study Skills elements. Generally, the Word Attack element is implemented at grade levels K-3 and at grade 4 for students still needing skill instruction. The Study Skills element is implemented in grades 1-6. The kindergarten teachers work on Level A Study Skills concepts, but do not test the children for mastery.

School organization. The 560 students are divided into five units. Each unit has a leader, three to four teachers, and a specified number of clerical and paraprofessional aides (see Table 1). Their responsibilities are described in the section, "Roles and responsibilities." The organization within each unit is determined by its members, and decisions about how to carry out instruction are made at weekly meetings. Time for the meetings is provided by dismissing students an hour early on Tuesday afternoons. The district personnel agreed with this schedule because they thought the teachers needed additional planning time.

Organization across all five units is determined by the principal, unit leaders, the learning center teacher, and the reading resource teacher. These staff members comprise the Instructional Improvement Committee (IIC), [3] which meets once a week to hear and resolve problems related to school-wide implementation of teaching skills. Because of the independent approach in each unit, however, the IIC has difficulty functioning effectively. The issues raised by the unit leaders are pertinent only to one or two units. The leaders are not familiar with procedures used in other units, and claim they do not have time to listen to others' concerns. The result is that issues must be dealt with separately in the units and teachers remain unaware of how others are implementing the Design.

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[3] The Instructional Improvement Committee is a component of the IGE school organizational scheme. It is a group of people from the school building responsible for planning, making decisions, and coordinating instructional activities within the school.

Reading program organization. All School D teachers use MacMillan Reading Program (1970) as a basis for their reading instruction. They supplement the skill instruction in this basal reader with instruction in the Design Word Attack and Study Skills elements. To help teachers see where overlapping occurs between the basal reader and Design Word Attack skills, the reading resource teacher and the reading instructional resource specialist (a reading specialist from the central administration reading department) devised a skills correlation chart showing appropriate Design Word Attack skills to be taught and tested at each of the 14 levels of the MacMillan (1970) series. The purpose for the skills chart is twofold: (a) it indicates which Design skills are similar to those included in the basal reader, and (b) it shows the level at which those Design skills not included in the basal reader can be logically taught. The project staff observed that some teachers follow this chart closely and others do not. Most teachers who consult it frequently try to avoid "reteaching" skills. They note which skills are introduced in both sequences and formally present these skills only once. When they "come across" the skills later that have been taught, they provide review activities rather than reintroducing the skill(s). The teachers who do not follow the chart tend to treat the basal reader and Design skill sequences separately, and reteach skills by offering two complete sets of instruction.

The project staff believes that both the teachers' and students' time is wasted by systematic reteaching of skills. Usually, one thorough introduction to a skill is sufficient if it is followed

by one or more periodic reviews and opportunity to apply the skill in situations outside the reading period. Skill activities should complement each other and not be repetitious.

● Basal reader grouping procedures: In all five units the students are organized into basal reader "classes." At the beginning of the year the unit leaders divide each unit into homogeneous reading classes according to (a) the level of the basal reader(s) used previously by the students, and (b) the students' performance on the San Diego vocabulary test (1969). They assign one class (usually about 30 students) to each teacher in the unit for reading instruction. In some units these classes remain intact for homeroom and math, English, and science periods. In other units, the teachers form different classes for homeroom and the content subjects.

During the reading period, most teachers further divide their class of 30 students into two to four basal reader groups. In some units these groups serve as a basis for teaching Design skills as well as for providing instruction in the basal reader. In other units the teachers form new groups for Design skill instruction, according to their students' skill needs. The procedures used in each unit are described in the next section.

● Design skills grouping procedures: Design skills are taught in all five units, but procedures for organizing instruction vary greatly among the units. Perhaps the most salient feature of Design grouping at School D, however, was the availability of a computer to

help assign students to appropriate skill groups. In general, the teachers did not take advantage of this resource. Although all teachers had been informed about the role the computer could play in their skill instruction, e.g., provide class profiles on students' current skill attainment, teachers in only two units used it consistently. These teachers saw it as an advantage; a time-saver in determining which students needed which skills. To obtain information from the computer, the teachers consulted with the reading resource teacher who was in charge of its operation.

The teachers in the other three units seldom or never used the computer. They saw little or no reason to, since they were either not teaching the skills or not attending to students' individual needs. Also, many were not posttesting or not reporting the posttest scores to the reading resource teacher. Therefore, she could not update the students' skill growth records. (See discussion of Staff roles, Reading Resource Teacher.) Without the updated information, appropriate skill groups cannot be formed.

Using the computer so infrequently was a significant factor in the decision to remove it from the school at the end of the year. Although it aided those teachers trying to individualize their skill instruction, it was of no help to those not inclined to do so.

Unit A. Two kindergarten and three lower primary classes (grades 1 and 2) make up Unit A. The unit leader is well organized and capable of directing teachers in her unit. In a unit meeting observed

by the project staff she was diplomatic and tactful in handling several different opinions about the unit's complex grouping schedule.

One teacher, in particular, is very knowledgeable about reading instruction and takes initiative to provide for her students' individual needs. She brought up the issue of skill application, stating no one in the unit gave it enough emphasis. The teacher decided to provide time at future unit meetings to brainstorm about ideas for application activities, since none of them had readily available ideas.

● Design skills: In Unit A Design skill instruction is separate from developmental reading instruction. The teachers reorganize their basal reader groups and form Design groups based on the students' skill needs. The groups are taught in a specially scheduled 20 minute period during a 6-day cycle. For example, they might begin to teach skills on a Monday, continue on a Tuesday, Thursday, Friday, and the next Monday, and administer the posttests on Tuesday. Each teacher usually forms a number of skill groups, since three aides are available to work with them. The unit leader plans the aides' lessons and prepares their teaching materials. At the end of the 6-day cycle, the teachers begin instruction in the other Design element, e.g., Study Skills, if Word Attack has just been taught.

During the year, the teachers decided to continue providing instruction in Study Skills in kindergarten and first grade, but not to test students in Study Skills before the mid-point of the first-grade year. The teacher thought the emphasis on Study Skills

concepts in addition to the main emphasis on Word Attack skills was enough to keep the students busy.

● Developmental reading: The teachers in Unit A try to coordinate their basal reader and Design instruction. They regularly examine the skills correlation chart (see Reading Program Organization section) to insure that students who finish a level in the basal reader have also had instruction in the partiuclar Design skills identified for that level. They try not to reteach skills, but rather to review or reinforce skills that have already been introduced. For example, short vowels are introduced in Level 5 of the basal reader series, so students are not scheduled in a Design short vowels skill group until they reach that point in Level 5.

After observing the Unit A procedures, the project staff concluded that, although the teachers schedule Design instruction separately from basal reader instruction, they have, in fact, done a good job of integrating the basal reader with the Design. The teachers believe they have one complete reading program, and not two separate ones which sometimes overlap each other.

The project staff observed a very positive attitude in Unit A and noted that the teachers are flexible and not opposed to new ideas or change. They are willing, for example, to transfer a student during the year to another homeroom in the unit, if the move might benefit him or her. They were willing to share their teaching procedures with the project staff and welcomed any suggestions.

Unit B. Unit B is a "new" unit, since none of the three teachers had previously worked together. The unit leader is enthusiastic and well organized. At the unit meeting observed by the project staff, she posed several scheduling concerns, offered her own solutions, and solicited additional ones from the teachers. The three teachers are all committed to teaching skills and making them the focus of their reading instruction.

● Design skills: The teachers in Unit B, like Unit A, schedule Design skill instruction separately from basal reader instruction. They teach the skills during 30 minutes of the Language arts block, 3 days a week. During this time, all three teachers, the unit leader, and the paraprofessional aide teach a skill group. At the beginning of a skill cycle, they each select one or two skills and divide the entire unit of 100 students into appropriate groups. They try to do this fairly, so that one teacher does not end up with too large (over 30) a group. They teach a set of skills, Word Attack for example, in one element for 2 weeks, take a week-long break and then begin teaching Study Skills for 2 weeks, following with another week-long break. The project staff thinks taking a break between posttesting and forming new groups in important if proper planning and any informal evaluation of "how things are going" is to occur.

At the beginning of a skill cycle, the teachers generally choose the Design skills to teach according to the instructional sequence in the basal reader. For example, if certain Word Attack skills have been introduced in conjunction with a story, but not mastered,

the teachers focus on these skills in Design groups, and then test for mastery. The teachers generally give more emphasis to the Word Attack than to the Study Skills element. Two teachers commented, however, that they have tried to emphasize some of the study skills in a content area, but have not done so systematically.

Unit B teachers have one Teacher's Resource File for Word Attack and one for Study Skills. They use the materials as a starting point for planning skill group lessons, but they supplement them with games they have made and materials from the Learning and Reading Centers. The teachers have added and deleted activities from the files to keep them current. Some teachers said they use the files to help them plan lessons for their developmental reading classes as well as for skill group instruction.

● Developmental reading: Within the large homogeneous class, each teacher has formed two to four basal reader groups which meet daily. The students generally stay in their own rooms, although the teachers are flexible and exchange some students, depending on the students' instructional needs. Most teachers follow the skill sequence in the basal reader, except for one teacher who has more experience teaching skills and has developed her own scheme.

The project staff observed that all the teachers tend to focus on the Design Word Attack skills and on general comprehension skills consistently during developmental reading. While these primary students need this development, more emphasis could be given to other types of skills, such as self-directd, interpretive, and

creative reading skills. The teachers are well organized and, if given the incentive, could integrate these other activities into their current reading curriculum. Then, they would have a very well-rounded program.

Unit C. The teachers in Unit C operate more independently from each other than any of the teachers in the other units. Their basic plan is for each teacher to incorporate on his or her own the Word Attack skills into developmental reading instruction and the Study Skills into content area instruction. The teachers do not exchange students for any reading skill instruction. They said they like to manage their own instruction so they "know" where each student is with regard to skill development. The Unit C teachers expressed negative feelings about the previously used school-wide grouping plan, which included scheduling skill instruction separately from developmental reading. They thought using that plan prevents (a) teachers from knowing the students in their skill groups, and (b) adequate reinforcement of the skills in content areas, because teachers do not know their students' skill attainment. The project staff realizes the Unit C teachers' objections to a school-wide grouping plan are well founded, because of the staff's observations in Schools B and C.

● Design skills: The project staff observed several content area classes and noted two of the teachers were tying in certain reference skills to a social studies project. The teachers said they selected the skills according to their relevance to current

assignments, and no attempt was made to systematically cover all of the Study Skills. The other two teachers said they infrequently taught Study Skills and were not sure how the skills could be incorporated into a content area.

The teachers said they focus on Word Attack skills during the developmental reading period. In one room the teacher establishes a number of "stations," which include a wide variety of skill work activities (e.g., a film strip on the use of possessives) and general basal reader work (e.g., cross word puzzles relating to a basal story). The teacher remains at one station, giving skill instruction to several students. None of the plans in the other three classes appeared to be as well organized as this one, nor is the attention to skills as consistent or systematic. The project staff was unsure whether the skills charts (see Reading Program Organization section) are consulted in Unit C.

Regarding testing, the unit leader reported that, generally, the teachers do not administer the individual Wisconsin Tests for Reading Skill Development after skill instruction. Rather, they wait until a group of students completes a level of the basal reader; or they give them before parent conference time. When the project staff inquired about the use of the Teacher's Resource File, all of the teachers responded that they were unfamiliar with it. They believed they had enough good ideas of their own for instruction. The project staff questioned, however, whether they were familiar with, for example, the background concepts, important in teaching many study

skills. (Because the other teachers in the school building all reported having easy access to a Teacher's Resource File, the project staff assumed that availability of the files was not a problem, and the teachers simply chose not to use the activities. These teachers were the only ones interviewed in 16 schools who reported not using the files.)

● Developmental reading: The teachers follow their basal reader very closely and generally teach only the skills included in it. The students' activities in three of the rooms were based primarily on the workbook suggestions. In the fourth room a number of games, worksheets,and audio-visual equipment were used.

In Unit C the project staff heard many good ideas expressed, but with the exception of one teacher, did not see any systematic or focused skill instruction occurring. Two teachers, in fact, responded defensively when explaining their instructional approach. The staff believes that Unit C has little unity. The teachers are not aware of what each other is doing, and could improve their instruction if they would (a) share ideas with one another, and (b) consult more resources in the school, such as the Teacher's Resource File and other materials in the Reading Center. The amount of skill instruction varies from teacher to teacher also, and some attempt should be made to provide it more consistently, so all of the students have an equal opportunity to meet their needs. Perhaps planning some regular informal evaluations of various procedures they are using and setting some specific goals would help the unit determine a particular direction for all the teachers to take.

Unit D. About 100 students from grades 3 and 4, students who are classified as learning disabled, and three teachers plus the unit leader make up Unit D. Although the teachers had not worked together previously, they all shared a concern about meeting students' individual needs and demonstrated a willingness to organize their instruction to meet their unit's goals (for example, keeping flexible schedules so that changes, such as adding or subtracting a day to the skill group cycle, can be easily made in all four classes). The unit leader is organized, hard working, and dedicated, with a thorough knowledge of reading instruction. She welcomed the project staff's observations and offered complete explanations of the unit's approach to skill instruction. She keeps detailed logs of each student's skill progress and helps lower-ability students--by slowing her pace and choosing suitable materials--to learn particular skills that are difficult for them to attain.

● Design skills: All of the teachers in Unit D give priority to their students' attainment of reading skills. They teach Word Attack skills during the developmental reading period and Study Skills during a separate skills time. Their reason for using this plan is that they are familiar with the Word Attack skills and have been successful in incorporating them with basal reader instruction. (They reported that the skills charts [see Reading Program Organization section] are valuable in planning their lessons.) They do not know the Study Skills as well, however, and believe the extra focus--in separate skills time--helps them become familiar with these skills, eventually, they can judge which skills fit best into the different content areas.

For instruction in Study Skills, the teachers disband the homogeneous reading classes and use the computer to form appropriate skill groups--across the whole unit--on the basis of the students' Study Skills deficiencies. They teach one set of groups for about 2 weeks and then posttest.

For Word Attack instruction the teachers group the students within their respective homogeneous reading classes. They coordinate their skill and basal reader instruction so they do not waste time reteaching skills, but rather, spend time reinforcing skills when appropriate. One teacher is developing learning packets for each skill, which contain activities for students to work on independently during part of the developmental reading time.

● Developmental reading: When students are not involved in focused Word Attack skill instruction, they do either basal reader activities (mainly from workbooks and commercial learning kits) or go to the Instructional Reading Improvement Center (IRIC)[4]. They go to the IRIC two times per week, 40 minutes each session. The teachers wanted to establish the IRIC because it provided alternative activities for half of the students during developmental reading. Then, teachers were free to give individual help to the students remaining in the classroom. In the IRIC, however, the students work on a variety of independent reading activities which are not necessarily coordinated with their work in Design Word Attack or

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[4]The IRIC is a reading center where students work on independent reading activities under the supervision of a person especially assigned to the center. It is funded by a title program.

the basal reader. The teachers see this as a disadvantage and also find the coming and going to the center confusing and disruptive. But they like having fewer students to teach at one time in the reading period.

The Unit D teachers believe they work well together and are able to discuss and work out different strategies at their weekly meeting. The project staff believes that if the unit is kept intact, it might provide even more effective instruction next year, as the teachers gain more experience in working together.

Unit E. Unit E includes about 100 fifth and sixth grade students, three teachers, and the unit leader. The teachers have worked together 3 years and have established a set of procedures they are accustomed to and reluctant to change. The unit leader, however, did express several concerns related to teaching Word Attack and Study Skills.

- Design skills: The unit leader recognizes that some of the lower-ability students in her unit need Word Attack instruction, so she provides it during the developmental reading period. (This instruction is informal, with no tests given or records kept.) She would prefer, however, that this responsibility be shifted to the reading resource teacher or at least away from her unit, so all the teachers could concentrate on other activities. This problem has not been resolved, nor has the unit leader vigorously explored other possibilities, such as combining Units D and E for Word Attack instruction.

For Study Skills instruction the teachers schedule a separate skills time 30 minutes a day, 4 days a week. They group the students across the whole unit (although they do not use the computer) and teach one type of skill at a time. For example, they introduce map skills and then teach these skills from several levels, such as Levels D, E, and F, to the same group of students. This approach is sensible if the students have numerous chances to use the skills. Too often, however, the skills are covered too quickly, the students use them only on worksheets and do not learn how and when to use them in real life situations. The unit leader expressed concern about the lack of study skills application and described some good ideas for new activities, such as an end-of-the-year social studies report requiring the students' use of many study skills. She commented, though, that there is so little time to devise activities and carry them out that actually doing them seemed impossible.

● Developmental reading: The Unit E teachers concentrate on vocabulary and comprehension development and follow the sequence of their basal reader closely. The students' activities include mainly worksheets.

The project staff believes that Unit E teachers are unenthusiastic about teaching skills; and yet they stick closely to their current set of procedures. They should try to use more varied activities, take advantage of more resources in the school (e.g., use some audio-visual materials from the IMC), and observe some of the procedures used in other units, such as the incorporation of Design skills into

the content areas. The teachers need to be encouraged to give the application of study skills high priority and to provide the students sufficient time to use the skills they are learning.

Staff roles and responsibilities. The staff members who help implement the Design at School D include the principal, 5 unit leaders, 16 classroom teachers, a learning center teacher, a reading resource teacher, 5 paraprofessional aides, and 11 teacher aides. Their roles and responsibilities are described in this section.

● Principal: The principal's major goal for his first year was to get to know the teachers and students and become familiar with the different approaches to skill-centered reading instruction used in the five units. The principal's position was to "hang back" and see how the teachers managed their instruction on their own. He did not set guidelines for them or specify that Design skills had to be taught.

During the year the project staff observed each unit and noted that some teachers elected not to teach Design skills. Without the support of the principal, neither the unit leaders nor the reading resource teacher were able to change these teachers' minds. They could not establish basic rules for everyone to follow, such as making monthly reports of their pupils' Design skill attainment, so that students with little or no growth could be identified. The project staff concluded that without strong leadership from one person in a school, implementing the Design with any consistency across or within units (or grades) is nearly impossible. When

teachers are free to determine their own instructional approaches, and when no one besides the principal has the authority to change the procedures, few cohesive efforts can be made. In order to get teachers to share instructional ideas and materials on a school-wide basis and to improve students' general skill growth, one person, with appropriate authority must set the course, and make it clear that everyone will participate and carry out his or her responsibilities.

The principal accomplished his personal goal long before the end of the year--that is, he was aware of the staffs' strengths and weaknesses and how each unit taught reading. He did not, however, change his position and exert his influence to establish parameters for his staff concerning Design implementation. He remained uninvolved with skill-centered reading instruction throughout the year.

● Unit leaders: The responsibilities of the unit leaders include: (a) representing their unit at weekly IIC meetings, thus keeping their teachers in touch with what other units are doing; (b) conducting their own unit's weekly meeting, where Design implementation and other school-related issues are discussed; (c) coordinating the instructional activities within their unit; (d) grouping students with the help of the reading resource teacher into homogeneous developmental reading classes at the beginning of the year and assigning one class to each teacher; and (e) organizing the resource files.

Most unit leaders reported that learning what was going on in other units at the IIC meeting was difficult, since the leaders

tended not to share situations unique to their own unit. The meetings mainly consisted of announcements made by the principal concerning upcoming, whole-school-related events.

At the weekly unit meetings the project staff observed that some unit leaders have a prepared agenda and systematically go through the discussion points, while other leaders do not have an agenda and simply ask if anyone has questions. If no issues are raised, the teachers are free to work in their own classrooms.

In coordinating the instructional activities, the unit leaders might help teachers make decisions about individual student's skill attainment, schedule separate Design skill groups, transfer students to different classes, or conduct informal evaluations of certain procedures, or propose schedule changes to remedy a conflict. The unit leaders are not assigned a homeroom class, which gives them extra time to carry out these duties.

● Teachers: The main responsibilities of the teachers are to provide Design skill instruction (plan lessons, form skill groups, and administer appropriate tests) and to coordinate this effort with the basal reader instruction. The degree to which these responsibilities are carried out varies greatly. Some teachers provide almost no focused instruction on Design skills and follow the basal reader sequence closely. Others regard the teaching of reading skills as their main focus, and keep detailed records of each students' skill attainment. Some teachers rely solely on worksheets to teach skills, and others work diligently to make up or locate as many games, audio-visual materials, and commercial learning kits as possible.

● Learning center teacher: The learning center teacher is responsible for organizing the audio and visual materials in the learning center. She establishes listening, reading, and viewing stations where teachers can send students for instruction on specific topics or for reinforcement of particular skills. Some units rely on her to teach reference skills, since she has so many resources available. The project staff observed that the learning center teacher is enthusiastic, enjoys working with students, knows the Design well, and keeps the center organized. She is quick to suggest materials for teachers to use and makes a point of showing students where different kinds of information can be found. Judging from her comment that she did not see a number of Study Skills students all year, the project staff concluded that many teachers do not take advantage of this teacher's valuable resources.

● Reading resource teacher: This person's role at School D is that of consultant to the classroom teachers. Her main responsibility is to establish the computer as an effective tool in managing Design skill instruction. She also gives break-in tests to new students and pretests students ready to work at a new level, scores tests, and charts students' skill attainment and progress through the basal reader levels. She has collected a variety of commercial reading materials as well as teacher-made materials and has organized these for teachers' ready use. She is knowledgeable about the Design (she has worked with it for 8 years) and is available at most times to consult with teachers about specific problems with either students,

materials, or teaching techniques. She is a member of the IIC and is involved in major decisions regarding reading instruction.

The reading resource teacher, however, does not have the authority to require teachers to teach and test skills or to demand that teachers provide her information on students' skill attainment. And, without this information, she cannot keep accurate records or use the computer effectively to group students. She has found that without the backup support from the principal, she cannot carry out her duties. Many teachers are not aware of this situation and resent that she does not spend her time instructing their lower-ability students in Word Attack skills.

The project staff believed that, again, a teacher with a wealth of knowledge and resources was not being consulted. By the end of the year the situation was not resolved. Central administration personnel indicated that the teacher planned to leave, and the computer would be removed from the school.

● Paraprofessional aides: Each of the five units has a paraprofessional aide who works directly with students on a day-to-day basis. These staff members must have earned 60 college credits, which, according to central administration personnel, qualifies them to work with students. The paraprofessional may teach Design skill groups or give special help to students needing extra practice. Usually, the unit leaders and sometimes the teachers plan the lessons, so the paraprofessionals are not responsible for determining appropriate instruction.

● Teacher aides: Eleven teacher aides assist teachers by performing clerical duties, such as scoring tests, duplicating worksheets, and charting students' progress. Although these aides work with students occasionally (e.g., administer tests to individual students and teach small skill groups), they are not regularly involved in instruction as are the paraprofessional aides. They are therefore, not required to have any credits beyond high school.

Implementation issue. Through the project staff's observations and interviews with school personnel during the year, one issue--that of providing leadership for the skill-centered reading program--was overriding. Many of the implementation procedures that the project staff and/or School D teachers identified as being ineffective were related to the fact that the teachers had no common goals or set of expectations to meet. The principal had chosen not to participate or play an active role in implementing the skill-centered reading approach, but rather to watch the teachers manage their own reading skill instruction, without guidance from one authoritative person.

The project staff has concluded, based on its experiences, that one person with proper authority, must be knowledgeable about the school's innovation and make decisions about basic practices for everyone in the school to follow, if a cohesive implementation effort is to be made. When the person in the leadership position does not become involved, many procedures cannot be carried out effectively.

Several examples of the ineffective implementation procedures identified in School D are discussed below. Each can be directly related to the issue of providing leadership.

● Providing instructional continuity: Because the teachers do not have specific goals to meet concerning their skill instruction, they are relatively free to teach skills independently of other teachers. As a result, little continuity exists within the school. Some students receive intensive skill instruction, and are exposed to different activities and teachers; other students do not receive any focused skill instruction, are mainly exposed to one lesson type (e.g., workbook exercises) and to one teacher (some teachers do not exchange students for instruction on a regular basis and rarely send their students to the learning center).

● Evaluating skill growth: The reading resource teacher's main responsibility--during this 1 year--was to monitor skill growth on a school-wide basis and help teachers set up appropriate Design skill groups with the aid of the computer. In order to do this the teachers had to supply her with their students' periodic test results. Because some teachers were not teaching or testing the skills, and others were teaching skills but but not testing them, the reading resource teacher had incomplete data. Therefore, she could not conduct a school-wide skill growth profile or use the computer to form skill groups. Under these circumstances, she found it extremely difficult to carry out her job responsibilities.

● Planning and sharing instructional ideas: Generally, the School D teachers do not share common goals, conduct similar activities, or use similar teaching procedures. They, therefore, find little need to plan together or share ideas. One result is that some teachers are unaware of valuable resources in their school, which can be used to enrich their skill instruction. (In one unit where the teachers make a conscious effort to plan and work together, the project staff observed a much wider variety of activities and materials being used.)

Another result of not planning together is the general lack of coordination between teaching Design skills and basal reader skills. Many teachers reteach the skills by using the same activities to teach a skill each time it is presented and do not consider alternative types of lessons. Instead, they could introduce a skill in a Design skill group by using developmental activities from the Teacher's Resource File. Then, when the skill is presented again, in the basal reader for example, they could use reinforcement or application activities--such as having the students use the skill with content area materials or a basal reader story. This would expand the students' knowledge of the skill beyond the point of a basic acquaintance. Coordinating skill instruction in this way permits the Design and basal reader to serve as complementing parts of one reading program, and discourages teachers from considering them as two separate and unrelated subjects.

Fitting the Design into a developmental reading program takes extra planning and, particularly if students are exchanged for

reading instruction, the teachers involved must share ideas about how and when to teach the skills. In one unit where the teachers were doing an excellent job of coordinating Design Word Attack skill instruction with basal reader instruction, they made plans together at each weekly unit meeting.

● Providing for skill application: A few teachers in School D are consciously trying to develop ideas for helping their students apply skills, such as having them use map skills in a current social studies project. A number of teachers, however, seem content with using only developmental activities, such as those in the Teacher's Resource File, to teach skills. Again, if there were more planning and discussion of ideas by the staff--at both the IIC and unit meetings--those teachers not providing application activities might hear how others devise and schedule them.

● Providing positive feedback to teachers: For those teachers in School D who are striving to meet students' individual needs by systematically teaching reading skills, and by varying their content, pace, and type of instruction, little reward is apparent. These teachers commented that their efforts are not recognized or appreciated. The project staff believes that providing positive reinforcement is as important to any smooth-running implementation effort as any other procedure. Without it, teachers get tired and discontented. One teacher, who seems particularly creative, has taught lower-ability readers for 4 years because she enjoys motivating them and seeing their progress. But, because she believes her

efforts are not appreciated, she is turning this group over to someone else next year. She says it is her turn to teach students without special problems.

The project staff recognizes that a variety of reasons may explain why the five procedures identified above are not being carried out effectively. The staff believes, however, that in School D, the main reason is lack of leadership for the skill-centered reading program. Certainly, with more guidance, the teachers' efforts would be more coordinated, which would increase the effectiveness of their instruction.

III

Summary of Implementation Procedures and Recommendations

In this section the implementation issues identified in the four schools are summarized and some recommendations regarding these issues are given for teachers and administrators who are implementing a skill-centered approach to reading instruction. The following issues will be discussed: (a) the role of reading skills in the total curriculum; (b) provision of leadership; (c) scheduling; (d) instruction; (e) testing; and (f) skill application.

In the discussion of the first issue the advantages of a skill-based versus materials-based curriculum are presented. In the leadership issue inservice training and administrators' involvement in daily staff activities are discussed. The four remaining issues deal with problems related to teachers' needs for flexibility, consistent self-evaluation, staff-wide sharing of materials and ideas, conducting the appropriate amount of testing, and providing sufficient opportunity for students to use the skills they learn.

Role of Reading Skills in the Total Curriculum

One of the main issues identified in all four schools was the role of reading skills in the school's curriculum. Many teachers view reading skills as one aspect of their multifaceted reading curriculum. This curriculum is often viewed as a composite of several separate programs, which may, for example, include a basal reader series, a phonics-oriented program, a general comprehension development kit, a skills program (such as the Wisconsin Design), and miscellaneous

commercial or teacher-made worksheets and games. In essence, many teachers consider an assortment of reading materials, and not reading skills and objectives, the basis of their reading curriculum.

Teachers having this point of view are inclined to teach basal reader and skills aspects independently and the activities are often repetitive and lacking in continuity. They do not coordinate with or reinforce each other or help the students relate one lesson to the next.

Some teachers have recognized that their reading instruction is "fractionated," not unified across all aspects of reading curriculum. They have tried to improve it, for example, by teaching reading skills in conjunction with the basal reader. That is, instead of perhaps focusing on skills during one part of the day and working in the basal reader during another, they combine the two class periods and try to use parts of the basal reader to reinforce the skill introduced in the skill groups. This alone, is an important step towards coordinating the different reading activities, but alone, it is not sufficient to achieve one, unified reading curriculum. To have one curriculum, the reading skills, and not the materials, must be regarded as the basic core of the curriculum.

Materials- versus skills-based reading instruction. If materials, instead of skills, are used as a basis to structure a reading program, emphasis is inadvertently shifted away from skills and towards subject matter. The concern becomes one of "getting through the book," instead of acquiring and using the skills. When teachers place

emphasis on teaching a text, they believe they must "cover" a number of stories and exercises, which leaves less time for focused skill instruction. With less time for teaching skills, more are likely to be taught at one time to large groups of students with diverse needs. As a result, little focused skill instruction occurs, and less attention is given to students' individual needs.

The main advantage for considering skills, and not materials, as the curriculum basis is that teachers can be confident they are emphasizing permanent learning tools, rather than bits and pieces of factual information which may only be retained temporarily. Also, with skills as a focus, teachers can provide specific activities that pertain to one skill or one aspect of one skill, e.g., one consonant blend or one context clue. Some of these may be application activities, which encourage students to use the skills on increasingly difficult and varied text materials. This application improves students' reading ability because they gain experience in using the skills in different contexts. Without skills as a focus, teachers provide only general activities and guidance for students dealing with harder content materials.

With skill-based instruction, teachers can draw from a variety of instructional sources and not be tied to one particular set of teaching suggestions. Instructional materials can be used as they are, or adapted to meet the teachers' needs. For example, parts of a basal reader can be used in different sequences for development

and application activities. Most available materials, such as a basal reader text, are more effective when they are used as vehicles for teaching the skills.

In a skill-based reading curriculum, the procedures for teaching the skills become important. Particular skills should be systematically taught to groups of students who have demonstrated a need for them. Such focused instruction is best given to (a) groups formed specifically for learning a certain skill (not, for example, to basal reader groups formed on the basis of the students' general reading level), and (b) students whom the teacher has in at least one other class period, so that he or she can follow up developmental skill instruction with opportunities for applying the skill(s).

Providing skill instruction to students who are grouped for other pruposes (e.g., basal reader, social studies, or math instruction) is not recommended. The only way to provide adequate skill instruction is to group students on the basis of their skill needs. With less effectively focused instruction, fewer students' individual needs are met and groups will be harder to manage, because the students are bored or frustrated.

The reason for suggesting that students and teachers in skill groups have additional time together during the day (or week) is that teachers can find more opportunities in content classes to reinforce (or encourage students to apply) skills if they are aware of some of the students' skill attainment. The teachers reported that in a content class, they do not examine profile cards to

determine skill attainment, and, therefore, provide most application activities spontaneously, based on their knowledge of the skills the students have already learned. For example, if a science class teacher has taught several students outlining skills in a reading skill group, then he or she can be confident these students are ready to outline a science chapter. If, on the other hand, this teacher is unaware of the students' skill attainment, he or she will not focus on skills to avoid repetitive or too advanced skill instruction.

Although teachers may initially object to coordinating reading skill group and content class schedules, the importance of following developmental skill work with systematic application in different contexts cannot be overstressed. Hopefully, an increased trend toward teaching Word Attack, Comprehension, and Study Skills in the content areas in elementary school may improve students' use of these skills at the secondary level, when less emphasis is on learning to read and more is on learning factual information.

Recommendations. The following recommendations can be made to those trying to coordinate skill instruction with other aspects of the reading curriculum:

1. Work toward establishing a curriculum that is truly skill-based. Staff members should be encouraged not to tie themselves to one particular set of materials, such that "covering" material during the school year becomes a priority over teaching and using the skills. All available materials in the school should be considered as resources for both skill development and application activities.

2. Emphasize--through planning and scheduling--the importance of skill development and application in a systematic manner. Staff members should try to incorporate skill work into every aspect of the school curriculum, and not just teach reading skills during the reading period.

3. Make any changes in the curriculum or teaching procedures slowly and do not make too many changes at one time. Staff members need time to adjust to new ideas, and changes are often better accepted if they take place over an extended period of time. Also, making a few complete changes at first (e.g., providing for application of the Reference skills in a language arts class), instead of making many changes (e.g., providing for application of all the skills in all the content classes) is less confusing and gives staff members a chance to experience success with the new procedures more quickly.

Leadership

Adequate leadership related to skill-based reading instruction provides for careful planning of inservice activities and close monitoring of day-to-day procedures. All four schools were experiencing some difficulty in both of these areas. Specific questions were:

1. What is an appropriate amount of staff training and what should the training include? Some administrators were satisfied with their inservice program and others wondered whether or not some changes were necessary.

2. How much direction should an administerator provide to his or her staff? A number of differences in style and level of leadership existed in the four schools.

3. How important is providing feeback to staff members? Some teachers were resentful because there was no differentiation between good and poor performance in terms of recognition and rewards.

Inservice training. In all four schools inservice training was provided prior to implementing a skill-centered approach. The training consisted of familiarizing staff members with the specific materials they would be using. Both the trainers and trainees thought their training sessions were satisfactory. The teachers were shown how to manage testing sessions, record students' scores, form skill groups, and use the Teacher's Resource File. The inservice sessions appear to have adequately prepared the teachers for using the components of the skill-centered approach.

This level of training is essential at the start of implementation, but (a) it is not the first training step that ought to be taken, and (b) it is insufficient if it is not followed up with regularly scheduled, e.g., on a yearly basis, inservice sessions both to inform new staff members and to update all staff members about current daily procedures. Although two of the four schools in this study did provide training for new staff, follow-up inservice training is generally neglected.

New teachers often find out haphazardly what implementation procedures the rest of the staff is using, probably by asking

questions as problems come up. Furthermore, in schools that have employed a skill-centered approach for 3 or more years, the teachers are often using outdated materials and are unaware of the guidelines published in the final version of the planning guides.

Follow-up training at the beginning of each year that informs new teachers, provides all teachers with new information, and reviews current procedures or recent changes can help to "get the teachers going"--all in the same direction. It also establishes a school-wide basis for reading skill instruction by providing all the teachers with similar guidelines and direction.

The inservice work that was provided in the four schools should be considered as a second step in providing training because the sessions focused mainly on the mechanics of using a skill-centered approach. Many teachers in the four schools had not developed the perspective they needed to use a skill-centered approach effectively. They seemed unprepared either to make the necessary commitment to individualizing instruction, which requires extra planning, staff coordination, and cooperation, or to accept the role of skills as the basis for the reading curriculum. Without this initial preparation and with background information limited to the use of the components, the teachers understood only the daily operations of the skill-centered approach, and were unable to perceive the most appropriate role of skills in their total curriculum.

The teachers who lack a comprehensive view are unnecessarily frustrated and confused, because they do not know the reasons for

many of the recommended procedures, and have no sound basis on which to make common sense decisions about their daily testing, grouping, and teaching strategies.

While many administrators agree that their inservice work did not establish sufficient background for the teachers, they generally believe funds to cover such additional training would have been difficult to secure. Nevertheless, all of them agree that greater attention should be given to this preparation in future inservice work.

One recommendation, then, is that when adoption of a skill-centered approach is contemplated, serious attention be give to inservice training that deals not only with the usual explanations of specific program guidelines and components, but also with personal attitude changes teachers must make. Such change is necessary for teachers to deal with the teaching of skills in a realistic, effective way. For example, deciding whether a high ability group of students needs certain Word Attack skills should be based not on blind adherence to a set of general guidelines (some of which may be inappropriate for the local situation), but on knowledge of the goals of the <u>total</u> program.

Leaders who wish to provide for the personal commitment and involvement and the changes in teaching procedures required for effective skill-centered teaching must observe sound principles of educational change (referred to in the introduction to this report). By giving attention to certain principles of change (such as helping

teachers recognize the need for change), the leader can help teachers to accept change, and to build and maintain positive attitudes. These are invaluable in promoting the staff cooperation needed to follow specific program guidelines (e.g., working out daily schedules).

In summary, inservice leaders must provide sufficient background information to assure that teachers understand the need for certain changes in their behaviors and perceptions as they begin to implement skill-centered reading instruction. In addition to initial information on specific materials and daily operations, regularly scheduled, follow-up training sessions, aimed at informing new staff and updating the information of all staff members must be provided.

Monitoring daily implementation procedures. Another aspect of leadership is provision for monitoring implementation practices and procedures. In order to implement a skill-based approach smoothly, one person must be in charge and keep track of what is going on. Leaders often have difficulty striking a balance between being too much involved, which indicates authoritarian control, and being too little involved, which indicates lack of interest and knowledge of the program. Both situations existed in the four schools.

One effect of too much direction by the leader is that teachers do not get involved in the decision-making process. If, for example, a leader regularly forms skill groups and determines the teachers' schedules, the teachers are in the position of simply "plugging in" instructional activities when the skill groups meet. Although some

teachers say they prefer this system, the effect is usually negative. Without responsibility for working out daily schedules and assessing students' skill attainment to determine appropriate grouping, these teachers become detached and sometimes alienated because it is easy to criticize suggested procedures. Worst of all, they take incentive in planning new, more workable strategies.

When the leader gives too little direction to his or her staff, a number of undesirable situations may develop.

1. Implementation procedures may vary considerably throughout a school because the teachers are free to set up their own ways of teaching, testing, and recording scores. This leads to resentment among staff members, because those who work diligently to make the program work will object to the fact that some teachers are doing little to implement skill instruction or perhaps not teaching skills at all.

2. The instruction provided may vary in quality and lack continuity across grade levels.

3. Parents may object to the variety of procedures being used school-wide.

4. Teachers are not encouraged to plan together or share instructional ideas and materials, which may decrease the effectiveness of instruction.

5. Little or no feedback--good or bad--may be provided to teachers. Thus, teachers who are performing well will begin to resent the lack of recognition, and those who are performing badly will be allowed to continue.

Based on the observations in the four schools, several recommendations can be made regarding the provision of leadership.

1. One person in a position of authority must be responsible for the entire reading curriculum. He or she should try to strike a balance between personally making decisions and involving teachers in making decisions.

2. The leader should be knowledgeable about a skill-centered approach in order to demonstrate to the staff members that he or she is actively involved in making decisions and willing to involve them in the process.

3. If a person other than the principal, such as a reading resource teacher, is put in charge of the skill-development program, then that person should be fully supported by the administration or else not expected to carry out the assigned responsibilities.

4. The leader must be willing to listen to and help resolve problems and help teachers find time to plan. He or she should encourage teachers to evaluate current procedures and try new ones.

5. Staff members should receive feedback regarding their performance. Teachers who are performing well are unlikely to continue their efforts if others who are not doing so receive the same recognition.

These leadership functions are essential to effective implementation. Many are performed spontaneously by a leader who takes an active interest in his or her staff's activities and makes a sincere effort to assure that responsibilities are divided evenly and assumed by all.

Scheduling

Scheduling tasks include arranging meeting times and places for skill groups, providing supervision for students doing independent work, and planning times when teachers can work on a schedule together. These tasks are complicated, and many teachers are frustrated with the resulting schedules. They frequently find the plans hectic and confusing. In this summary discussion some reasons for scheduling problems are examined and recommendations are made for improving the planning process.

Scheduling problems. Two main scheduling problems are found in all four schools. First, teachers tend to lack flexibility regarding (a) the exchange of students among skill groups, and (b) their prepared lessons for a particular skill cycle. For example, when a skill group is formed, teachers generally assume that all the students in the group need the particular skill. In practice, however, the students may vary a great deal in their abilities to use it. In such cases, teachers need to alter their plans either by transferring the students who apparently "know" the skill to another skill group (or one doing, independent activities), or by incorporating application activities into their prepared lessons. This would accommodate students who do not need further introductory (developmental) work.

However, providing guidance for students doing independent work in a library requires extra preparation time and extra cooperation among the teachers involved. Many teachers, consequently, have found it easier to keep their groups of students intact, But,

teachers often become frustrated when their groups are kept intact and the teachers find their students do vary in their abilities to use a certain skill. They believe the only way to accommodate the students' individual needs is to introduce various other skills the students are lacking. "And," they report, "we don't have the time to make this many separate preparations."

Teachers must recognize that when attempting to individualize skill instruction, alternatives to teaching a variety of skills within one group exist. For example, teachers can concentrate on one skill in a group by presenting different types of activities to students with different abilities. For example, they could give a developmental activity in context clues (e.g., a task requiring students to underline the best meaning for a nonsense word in a sentence) to students not familiar with them, and assign tasks to the rest of the group requiring the students to use the clues in reading social studies materials or a newspaper. Although these two activities may require separate preparation, the activities are related and the teacher's attention is less divided because it focuses on one skill.

Using this teaching procedure is particularly recommended when teachers are grouping in two or more skill areas (e.g., Word Attack, Study Skills, Comprehension) concurrently, and also attempting to teach the skills in content areas. Teachers cannot be expected to divide every class they teach during the day into several groups and have separate preparations for each one. They must find ways, such

as the one just suggested, to satisfy a majority of the students' skill needs, yet not get trapped into forming skill groups for every hour of the day.

The second main scheduling problem is that teachers do not allow themselves time to evaluate, on a regular and informal basis, their planning, grouping, and instructional strategies. Without an "official avenue" established for teachers to vent their frustrations and express and try out their own ideas or solutions, teachers are inclined to sit back and criticize the current system. They tend to take a passive role in resolving daily conflicts that arise in even the best-planned implementation effort. Many teachers make such complaints as, "The skill groups were held too long, " or "We didn't have any time between skill cycles to plan." But they rarely spend time discussing corrective and constructive measures they might try instead.

To encourage evaluation, a specific part of the teachers' planning period should be devoted to (a) reviewing the day's or week's planning, grouping, and instructional strategies, and (b) discussing alternative solutions to current problems. If teachers do not take the initiative for establishing a regular review, then an administrator should direct the teachers to do it. If teachers are encouraged to express their frustrations in a constructive context, many negative attitudes, misunderstandings, and dissatisfactions may be avoided.

School-wide skill grouping. Another issue related to scheduling in two of the schools is whether or not to form skill groups on a school-wide basis. Several advantages exist regarding grouping students from three or more grade levels together. They are:

1. The administrator can be assured the teachers are meeting with skill groups on a systematic basis. In a school-wide plan a specific time is set aside for skill instruction and all teachers are responsible for a group. When teachers function more independently of each other, principals are unsure of the exact amount of time devoted to teaching skills.

2. Reading instruction is more coherent on a school-wide basis. Since skills serve as a common focus among the teachers, and often only one basal reader series is used, the reading program has a similar structure at each grade level.

3. Both teachers and students get to know the other teachers and students.

In order for these advantages to be apparent, however, the teachers must be unusually cooperative and strongly committed to a skill-centered approach and to meeting individual student needs. The school-wide grouping scheme also has several disadvantages:

1. Forming skill groups with many students included is complicated, and therefore, it is best if only one or two people assume the entire grouping responsibility. These two people may not know all the students and their respective abilities, so the skill groups formed may be inappropriate. Also, teachers uninvolved in the grouping find it easy to criticize, instead of taking time to think of better ideas.

2. Teachers frequently do not know the students in their skill groups (because of the different grade levels), and find it difficult

to provide appropriate instruction for everyone.

3. Teachers have difficulty emphasizing use of the skills in content classes, since they have not taught many of the students in skill groups, and are unaware of their general skill development.

If a staff prefers a school-wide grouping scheme, strong consideration should be given to the advantages and disadvantages identified, and any apparent problems resolved bofore implementation begins. School-wide grouping may work best when the school is small.

Recommendations. To help mitigate or even avoid the problems of lack of flexibility and time for self-evaluation, teachers might observe general scheduling guidelines when they plan their daily and weekly reading skills lessons. The following practices are recommended:

1. Allow time each week to work out a schedule together (as a grade level or unit) or, at least, share the general plan. Even in self-contained situations, each teacher should be aware of the approach others are using.

2. Provide some form of alternative instruction for students whose skill group placement is inappropriate.

3. Work out schedules to meet teacher needs as well as student needs. Avoid a complicated arrangement of daily groupings which causes confusion, to the point where the main emphasis seems to be movement--finding the room and students--and not on teaching the skills.

4. If possible, schedule skill groups in rooms where there is access to a variety of appropriate instructional materials.

5. Discuss current procedures on a regular basis and change any that do not work.

To carry out these practices, sufficient planning time must be provided. Initially, school personnel may be hesitant to incorporate this time into their current schedules. However, once teachers experience success in meeting and dealing with their frustrations, they will gain confidence in their abilities to recognize and solve specific problems, and believe the planning time is worthwhile.

Instruction

A main issue regarding skill instruction is the lack of sharing of ideas and materials among staff members. All too often teachers report they are unaware of what types of lessons other teachers in their unit or grade level use to teach skills. In the four schools, in addition, a number of teachers were not taking advantage of valuable resources in their learning centers or libraries. They were depending primarily on one or two texts--located in their classrooms--for instructional activities. The teachers' reasons for this included lack of interest, personality conflicts, and no time to talk together, plan, or locate the needed materials.

In one school little sharing takes place because the teachers have individual Teacher's Resource Files. They think it is unnecessary to see activities made up by other teachers. In the schools with one central resource file, the teachers report that sharing does not work because "Someone else always has the file I want," or "The files are messy," or "Activities are inserted which are inappropriate for the skill."

Reasons for sharing. One important reason to encourage sharing among staff members is that varieties of activities are needed to interest students and meet their range of needs. And, no one teacher can be expected to devise enough activities on his or her own to meet these daily demands. Another reason for sharing is that once teachers form a habit of trading ideas back and forth, a cooperative atmosphere can be established. When teachers acknowledge that cooperation is the rule rather than the exception, they are more likely to informally talk over students' problems and then plan instruction for them. This instruction is usually less repetitive than if it were planned independently.

Recommendations. In order to promote sharing among staff members, especially when one or more of the teachers resist the idea, administrators may have to firmly establish instructional procedures for the staff to follow. Later, when a cooperative atmosphere has been established, the procedures may or may not be moderated. Some examples of these procedures are included in the following recommendations to administrators. These recommendations may be modified where necessary.

1. Take imitiative and assume major responsibility for establishing a cooperative atmosphere.

2. Provide time for teachers to share instructional ideas, at an inservice session, for example. Require each teacher to contribute both a developmental and an application activity (for a certain skill) to the resource file. (Developmental and application activities

are explained in the discussion of the skill application issue.)

3. Hold regular inservice sessions on locating and identifying new activites.

4. During a planning session, group a teacher who has little interest in sharing with someone who has a positive attitude and initiative to plan.

5. During a planning session where two teachers with a personality conflict must work together, assign each one a specific responsibility.

6. Check the location of the school's instructional resources and be sure the materials are usable and organized.

7. Encourage teachers to use a variety of sources (such as audio-visual materials) to teach skills. If necessary, limit the number of worksheets per skill that can be used.

8. Encourage teachers to consult the IMC director/librarian for ideas on teaching reference skills, for locating different activities or supervising students doing independent work, or for specifically teaching certain skill groups.

9. Establish how the Teacher's Resource File is to be used. For example: (a) provide enough resource files so that more than one central file can be set up, but do not provide enough for each teacher, since they may lose their incentive to consult files other than their own; (b) assign <u>one</u> person the responsibility of adding new activities and deleting old ones from the files; and (c) recommend that a check-in and -out system for file activities be established by the responsible person.

In summary, the overall quality of skill instruction is better when teachers communicate on a regular basis, rather than teach independently of each other. Establishing a cooperative atmosphere among teachers, however, can be very difficult, and attempts to do so should be made over a period of time, with the staff being fully prepared for each new procedure it must follow.

Testing

Conducting an appropriate amount of pre- and posttesting is important in focusing skill instruction. To know what to teach, students' skill deficiencies must be identified prior to instruction, and then checked later, to see if the deficiencies have been corrected. In all four schools a number of teachers were having difficulty striking a balance between administering too few and too many pre- and posttests.

Too little testing. In situations where teachers do too little pretesting, students are taught skills they either know or are not ready for. The teachers are largely unaware of the students' individual skill attainment. These teachers often do not focus on specific skills, since many of the students become bored or frustrated. Without a specific focus, the teachers cover more skills at once, in a more superficial way. Then, they repeat the instruction (which is quite costly in terms of instructional time) for those students who do not understand it the first time.

Some teachers routinely identify student needs before instruction, but do not follow up with posttesting. Without the benefit of posttest

scores, these teachers are not aware which students need further developmental work in the skill and which students are ready to use it on their own. These teachers also tend to reteach skills to everyone, instead of offering a different kind of instruction to some students. In these situaitons, students' skill growth is difficult to assess, since the only scores available reflect the students' deficiencies before instruction has taken place.

Too much testing. When teachers "overtest," far too much emphasis is placed on developing skills and not enough on applying them. For example, at the beginning of a skill group cycle, these teachers routinely reassess students to see if they have learned the skill to be taught, despite the availability of recent pretest scores. If students pass the test, the teachers notch the profile cards and introduce a new skill. Thus, the students are exposed to an unnecesary number of tests and skills, and not exposed to enough opportunities to use the skills they already know.

Recommendations. To decide what is the proper amount of testing, teachers should mainly use common sense. At the beginning of a skill group cycle, they should check available records to learn what each student's ability is with regard to the skill, and then plan activities accordingly. Instead of immediately reassessing students grouped together for instruction, teachers should be ready to provide opportunities for skill application to those students who seem familiar with the skill, and offer developmental instruction to other students. (All students can be tested together at the end of the cycle.) In

using this approach, a teacher can be assured of teaching the skill originally assigned to the group, and, thereby, avoiding "changing" skills at the last minute--when the skill cycle has already started--and making hasty preparations. The students are also assured of getting needed practice in use of the skill.

After instruction, teachers should record the students' posttest scores, so that general skill growth, on a grade- or school-level basis, can be determined if desired. For those students who do not pass the test, a retest may be in order, but only after they have had additional exposure to the skill. Following these guidelines and their own common sense, teachers should not have significant problems in administering the right number of tests.

Skill Application

A summary discussion of skill application is included here to stress that teachers and administrators must establish it as a priority in their instructional strategies. Skill application refers to the independent use of skills in real-life situations (or as near real-life as possible). An example would be finding a book in a library by first locating it in the card catalog. "Applying" a skill is different from "developing" one, in that developing a skill emphasizes learning about it, not using it. An example of a developmental task is underlining on a worksheet the titles of books that could be found in a De-Dye card catalog drawer.

In the past teachers have largely ignored the application aspect of skill instruction, and, are just beginning to realize the vital

role it plays in students' skill acquisition. Many teachers are also questioning how they can provide for it, since they do not have readily available "application" activities, and do not know where to fit these activites into their current schedules.

Teaching skills. Until recently, teaching skills was described as a basic three-step process. The steps include introducing a skill (e.g., explaining what a card catalog is for), assigning a series of activities (primarily worksheets) designed to develop the skill, and administering a posttest. The students' posttest scores of 80% or above have been interpreted to indicate skill mastery, and that no further exposure to the skill(s) is necessary. This simplistic approach lacks the necessary emphasis on skill application. A focus on only the developmental aspect of skill instruction is insufficient, if students are to acquire the skills on a long-term basis and for independent use.

In order for students to retain and apply a skill on their own, they must have opportunities to use it when initial instruction is offered. Teachers implementing a skill-centered approach frequently see examples of students having "mastered" a skill on a posttest and then not being able to use the skill a short time later.

To help students retain their skills, teachers need to first offer developmental instruction (to those students not familiar with the skill), and then follow up with opportunities to use the skill. To apply the skills, as many real-life situations as possible should be created. For example, students can follow cardinal and

intermediate directions to an unknown location in the school, use library reference sources to locate information, or do homework reading assignments in social studies using a sequence timeline skill. Students who have had experience applying a skill at their independent reading level should apply the skill to more difficult reading materials before learning a new skill. Teachers should not worry about students overusing a skill, but they should worry about them overdeveloping a skill, which occurs when students are exposed only to developmental instruction in a skill.

Teachers commonly say they lack the time to devise and carry out skill application activities. However, if teachers spend more time on devising and incorporating these activities into the regular skill group work, they might, ultimately, spend less time reteaching skills that students forget. Thus, focusing on skill application would not necessarily mean increasing the amount of teacher preparation and skill instruction. In addition, many application activities can be made up on the spur of the moment (they do not have to be written out), take a relatively short time for students to complete, and offer an exciting change of pace.

Skill application guidelines. Many of the comments in previous discussions have indicated how skill application activities can be appropriately used. Additional comments and suggestions are provided here.

- Applying skills in skill groups: One way for teachers to emphasize use of the skills is to incorporate application activities

into the regular skill group work, as a natural follow-up to the developmental activities. For example, (a) after students study a particular consonant blend, they could read a story, point out the blends, and pronounce the words; (b) after learning a sequence skill in Comprehension, a chapter or paragraph from the students' social studies text could be assigned as material from which to determine the order of events; or (c) after studying intermediate directions in Study Skills, the teacher could assign the students to follow directions which would lead the students to a specific place.

● Applying Word Attack skills: Providing application activities for Word Attack skills is easy because whatever students read, they must "decode." It is a good idea to have students read aloud from some material other than a basal reader, for example, do a science assignment during a Word Attack skill group, to demonstrate to themselves and to the teacher that they know how and when to use the Word Attack skill in other subject areas.

● Applying Comprehension skills: Particularly in Comprehension, students need practice using the skills on a variety (e.g., basal reader, content texts, newspapers) of materials. The nature of a Comprehension skill may change from one subject area to another, such as getting the central thought from a short story or from a science paragraph. Repeated practice will help the students learn what techniques help most with different materials. Because of the importance of using the Comprehension skills in a variety of contexts, teachers should not introduce them too rapidly. They might have to take as much as a

year to help students become as automatic as possible when applying the skills (Otto & Kamm, 1977).

● Applying Study Skills: The recommendations for Study Skills are similar to those for Comprehension skills. Teachers should not introduce the Study Skills as quickly as students can "pick them up." Rather, they are better taught at a slower pace. For example, during one year a teacher might only introduce those Study Skills at or below the Design[redacted]el, and not introduce the skills at the next higher level(s). In this scheme of teaching, emphasis is placed on using a skill in one (or more) content areas as part of and as a natural follow-up to the developmental work in the regular skill group. At the end of the skill group, the teacher regroups to introduce either another Study Skill (at the same level) or begin a Word Attack or Comprehension skill cycle. Ideally, special review sessions, or opportunities for application of one or more related Study Skills, are scheduled periodically during the year.

The main difference between the recommendations for applying Comprehension and Study Skills is that while a great variety of materials can and should be used with Comprehension skills, one type of material may be sufficient for applying a graph or table skill. The Study Skills are more specialized, and therefore, not used as frequently or with as many different types of materials as the Comprehension skills. Teachers should consider this point when planning their lessons and scheduling their Comprehension and Study Skills groups.

A Last Word

On the basis of our observations in the four schools, we have made recommendations for resolving conflicts in the implementation of a skill-centered approach to reading instruction. These recommendations are based on both the collective experiences of the project staff and on the conclusions of many reports concerning the nature of the educational change process.

One of our salient conclusions is that the concerns of school personnel when they adopt an innovation are related as much or more to simply undergoing the process of change as to the specific guidelines for using the innovation. That is, a majority of the difficulties we observed stem not from the Design materials and procedures per se, but because the teachers are doing new things they are often inadequately prepared for. This point is emphasized in our discussion of the leadership issue. We strongly reommend that inservice training sessions be directed not only to the use of materials and proper procedures, but also to preparing teachers to make necessary changes in their personal teaching, testing, and group management styles.

With better preparation for viewing the change process in perspective and for making the needed personal changes, teachers may find the implementation process less disconcerting. They may be better equipped to resolve issues related to establishing and teaching skills as the basis of the curriculum, attain the flexibility needed for planning and scheduling, establish a cooperative atmosphere for sharing ideas and materials, decide how much testing is essential,

and integrate the teaching of all skills into the total curriculum.

Far too many variables exist for us to identify a single plan, appropriate for every school, which will make implementation of a skill-centered approach easier. By paying greater attention to psychological factors, such as preparing administrators and teachers for their role in using the innovation and making the necessary changes in individual style, during inservice training, we can increase their ability to deal with implementation problems as they arise.

Reference Notes

The papers below are from the symposium, What do research findings say about getting innovations into schools. Philadelphia: Research for Better Schools, Inc., 1974. Papers are in order of presentation.

Baldridge, J.V. Political and structural protection of educational innovation. pp. 3-45.

Crandall, D. P. Fostering change from without: A practical perspective. pp. 49-70.

Havelock, R. G. Locals say innovation is local: A national survey of school superintendents. pp. 73-95.

Miller, R. I. What we can learn about change processes from ESEA Title III. pp. 99-113.

Pierce, W. H. Is innovation a dirty word? pp. 117-124.

Temkin, S. A school district strategy for interfacing with educational R&D. pp. 127-140.

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Instructional Materials

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